

Fig. 1

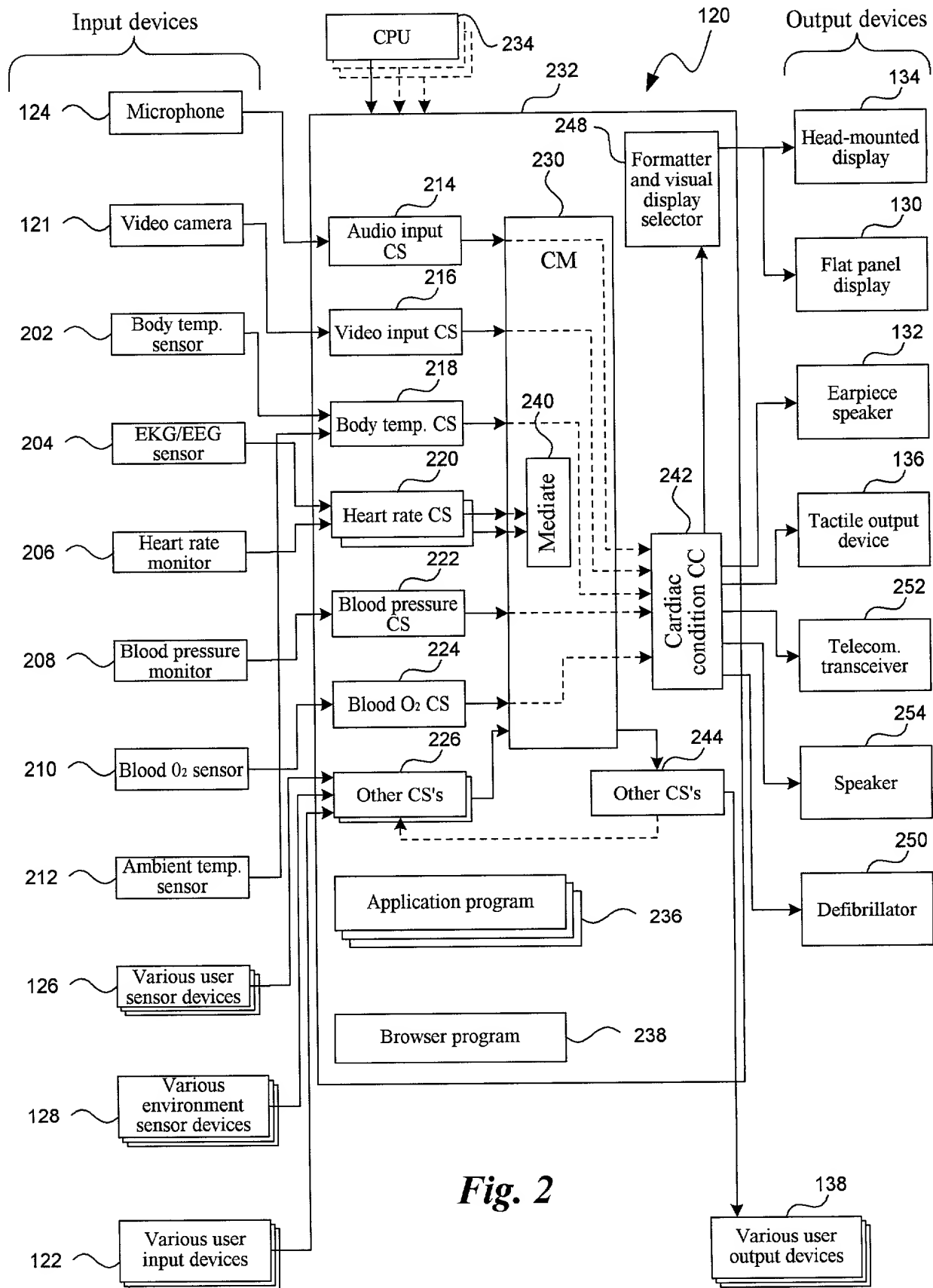
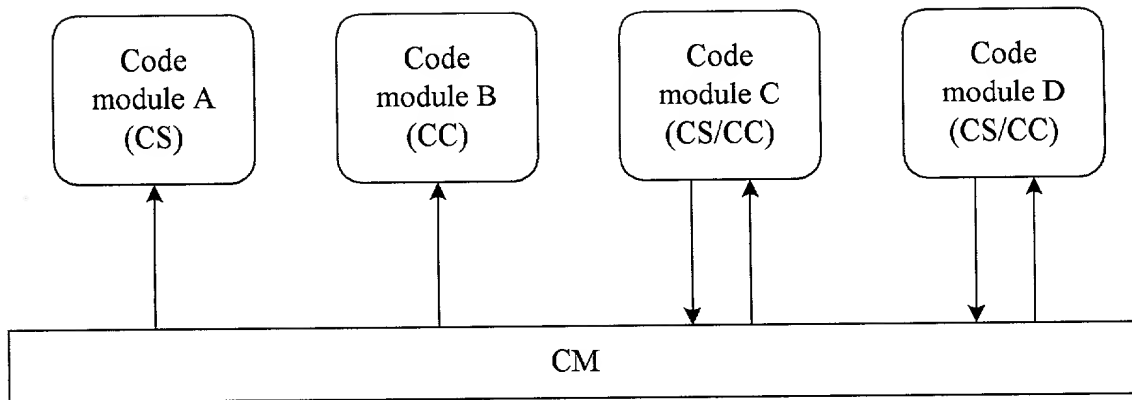
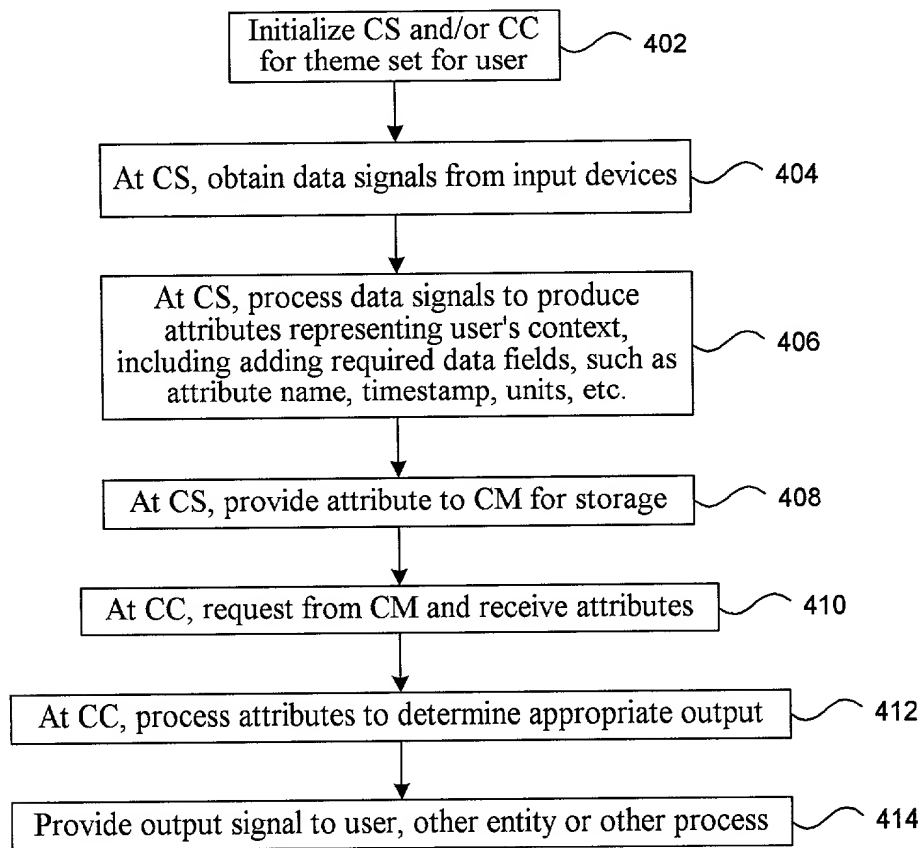


Fig. 2



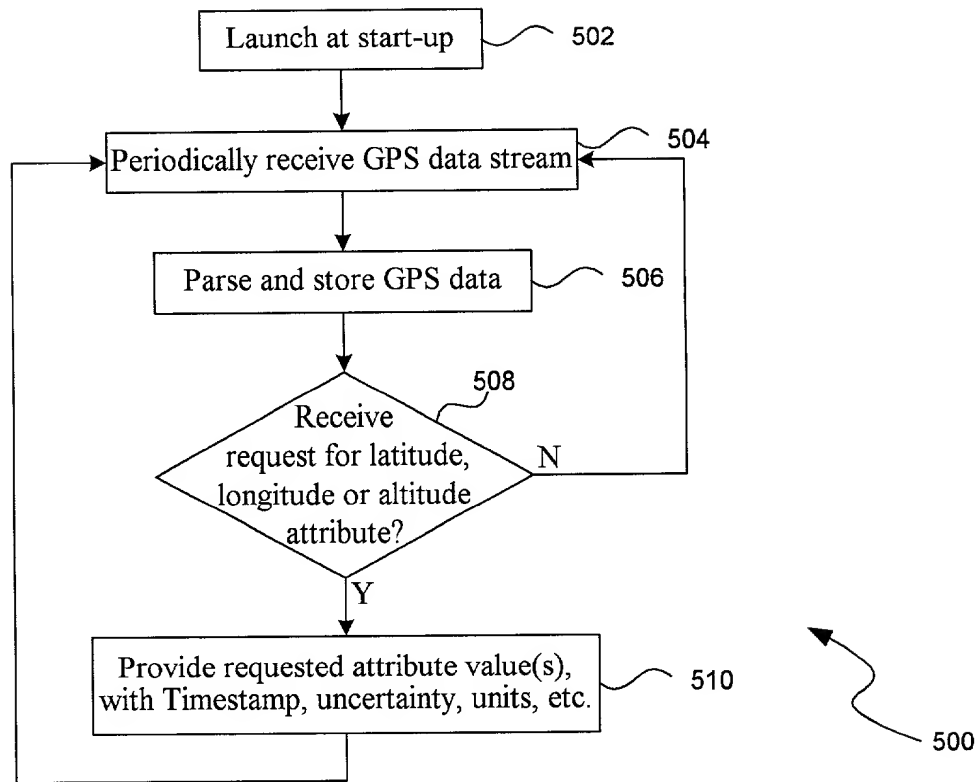
**Fig. 3**

300

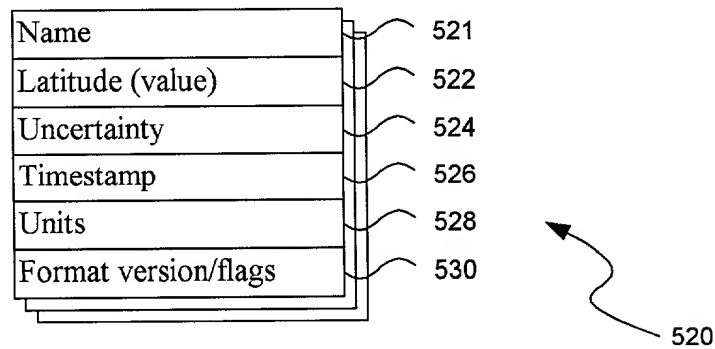


**Fig. 4**

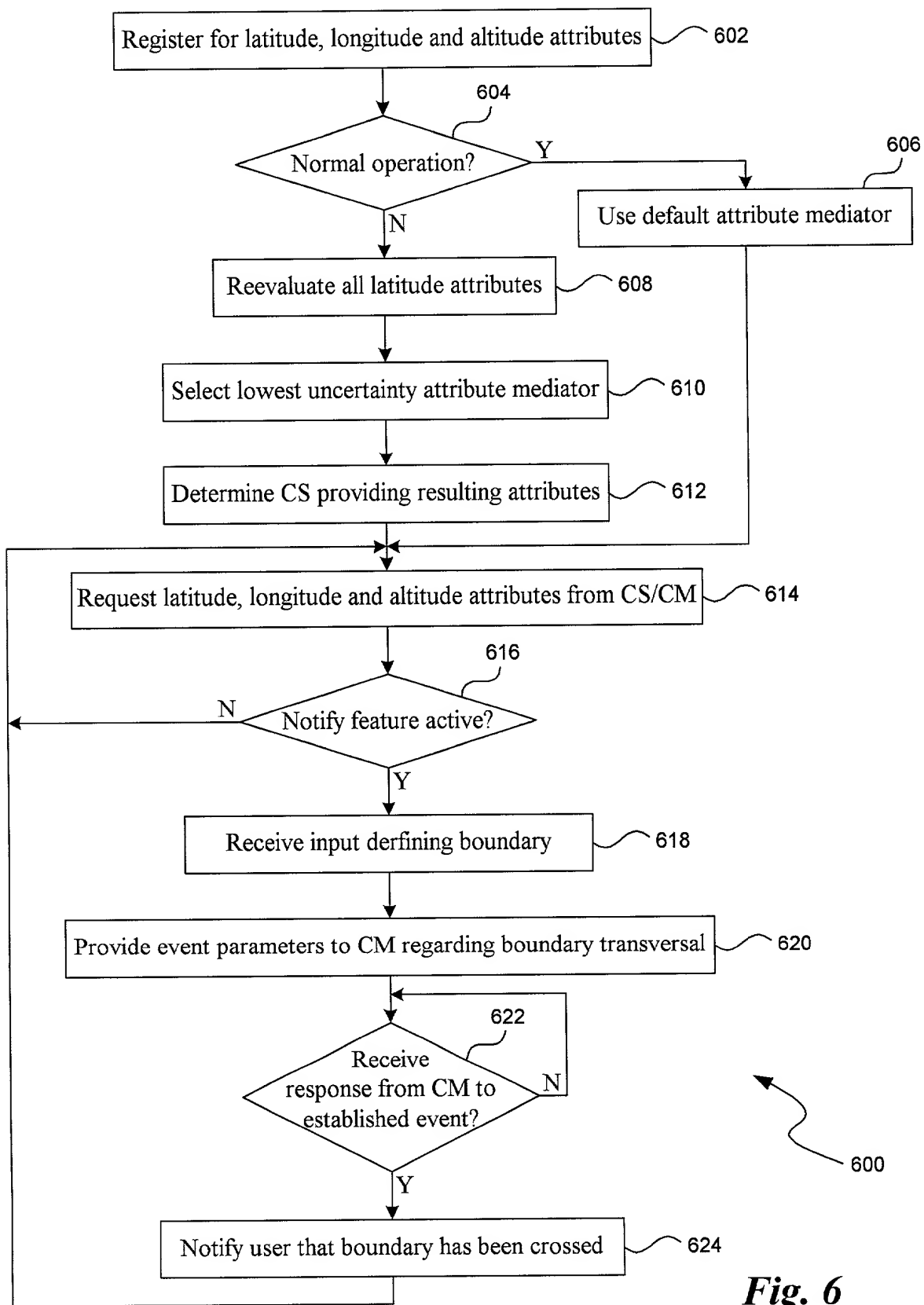
400



**Fig. 5A**



**Fig. 5B**



**Fig. 6**

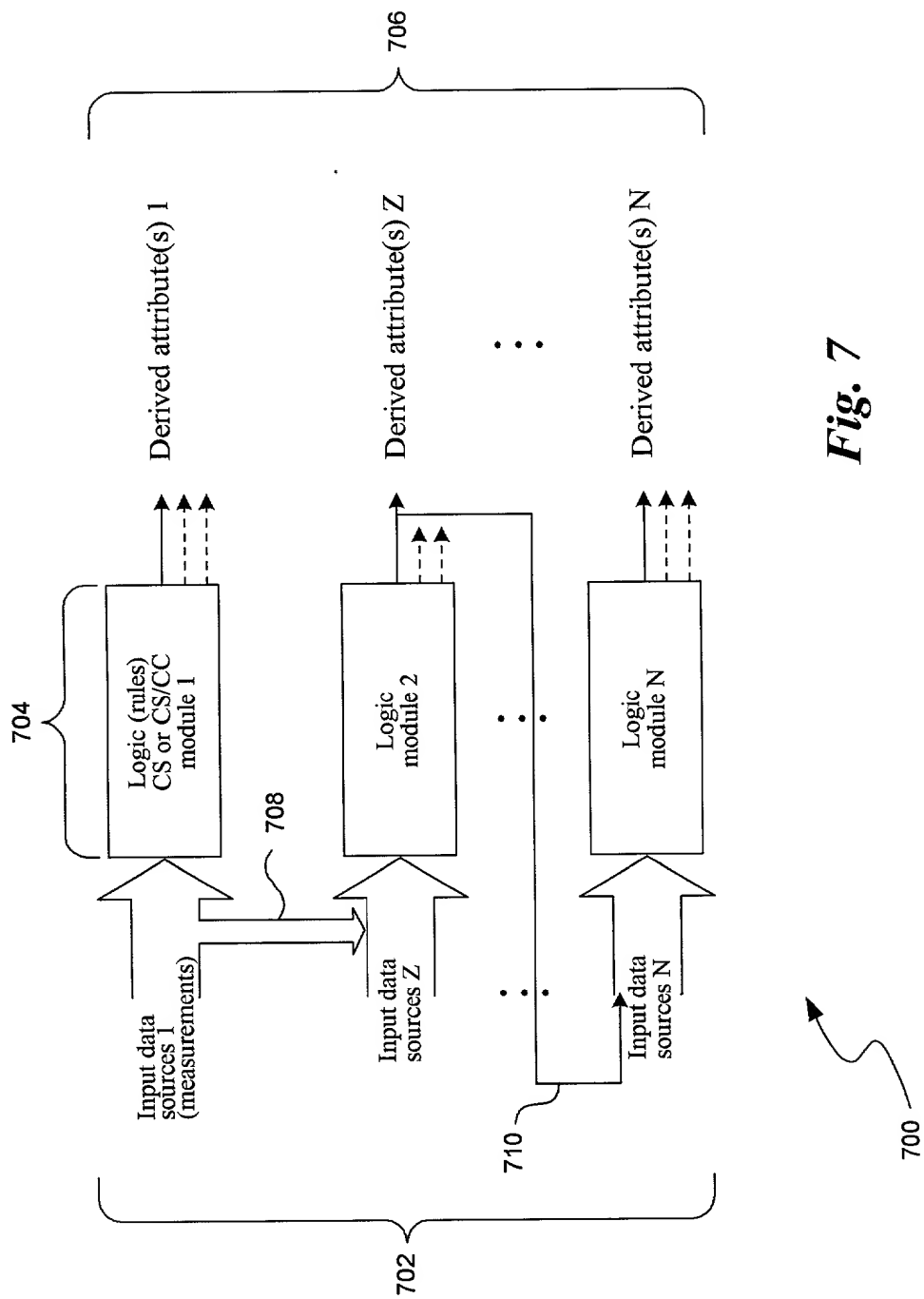


Fig. 7

**User.**

- Desired\_privacy\_level
- Interruptibility
- Speed
- Direction
- Acceleration
- Availability.
  - Cognitive\_availability
  - Tactile\_availability
  - Manual\_availability
  - Visual\_availability
  - Oral\_availability
  - Auditory\_availability
- Proximity.<Item or place name>
- Mood.
  - Happiness
  - Sadness
  - Anger
  - Frustration
  - Confusion
- Activity.
  - Driving
  - Eating
  - Running
  - Sleeping
  - Talking
  - Typing
  - Walking
- Location.
  - Place\_name
  - Latitude
  - Longitude
  - Altitude
  - Room
  - Floor
  - Building
  - Address
  - Street
  - City
  - County
  - State
  - Country
  - Postal\_Code
- Destination. (same as User.Location.)
- Physiology.
  - Pulse
  - Body\_temperature
  - Blood\_pressure
  - Respiration

**Person.**<name or ID>. (same as User.)

**Platform.**

- UI.
  - Oral\_input\_device\_availability
  - Manual\_input\_device\_availability
  - Tactile\_output\_device\_availability
  - Visual\_output\_device\_availability
  - Auditory\_output\_device\_availability

**Platform.** (continued)

- CPU.
  - Load
  - Speed
- Memory.
  - Total\_capacity
  - Used
- Storage.
  - Total\_capacity
  - Used
- Connectivity.
  - Connection\_status
  - Connection\_speed
  - Connection\_type/device
  - Connection\_activity
- Power.
  - Power\_source
  - Power\_level

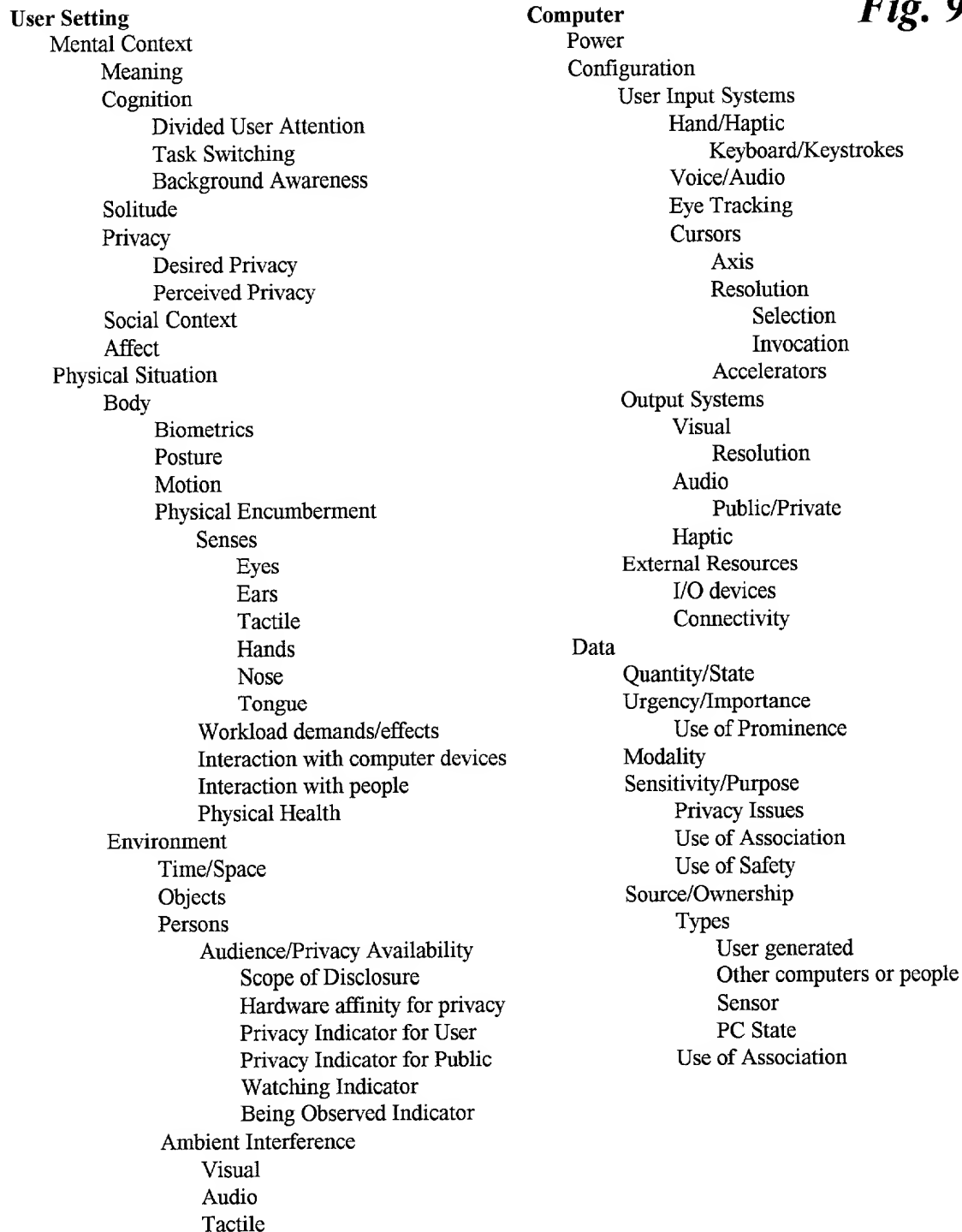
**Environment.**

- People.
  - Nearest
  - Number\_present
  - Number\_close
- Local.
  - Time
  - Date
  - Temperature
  - Pressure
  - Wind\_speed
  - Wind\_direction
  - Absolute\_humidity
  - High\_forecast\_temperature
  - Low\_forecast\_temperature
  - People\_present
  - Ambient\_noise\_level
  - Ambient\_light\_level
  - Days.<previous or future>.
    - High\_temperature
    - Low\_temperature
    - Precipitation\_type
    - Precipitation\_amount
- Place.<place name>. (same as Environment.Local)

**Application.**

- Mail.
  - Available
  - New\_messages\_waiting
  - Messages\_waiting\_to\_be\_sent
- Phone.
  - Available
  - In\_use
  - On/off
  - Notification\_mechanism
  - Call\_incoming
  - Caller\_ID
- Sound\_recorder.
  - Available
  - Recording

**Fig. 8**



**Fig. 9**



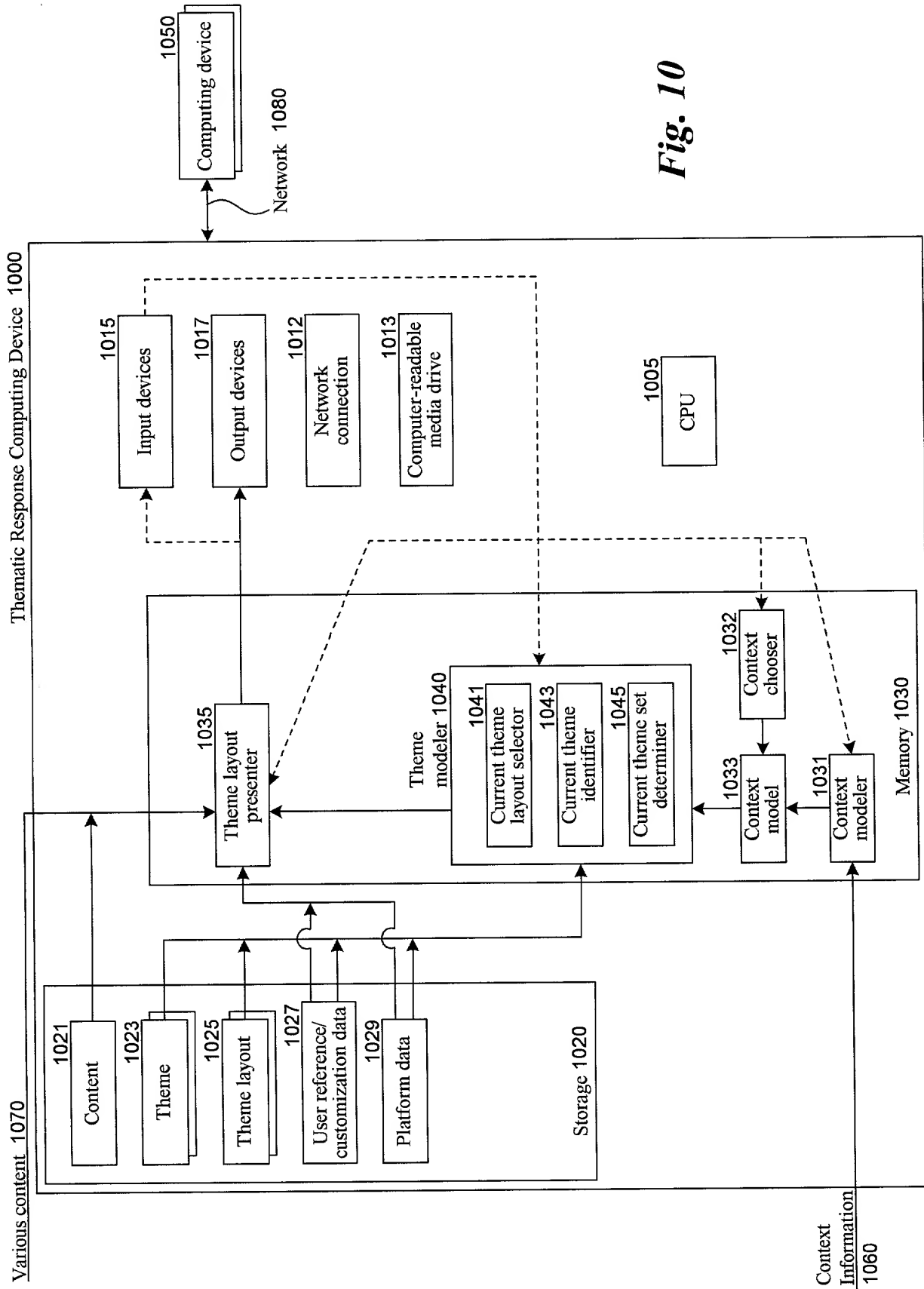
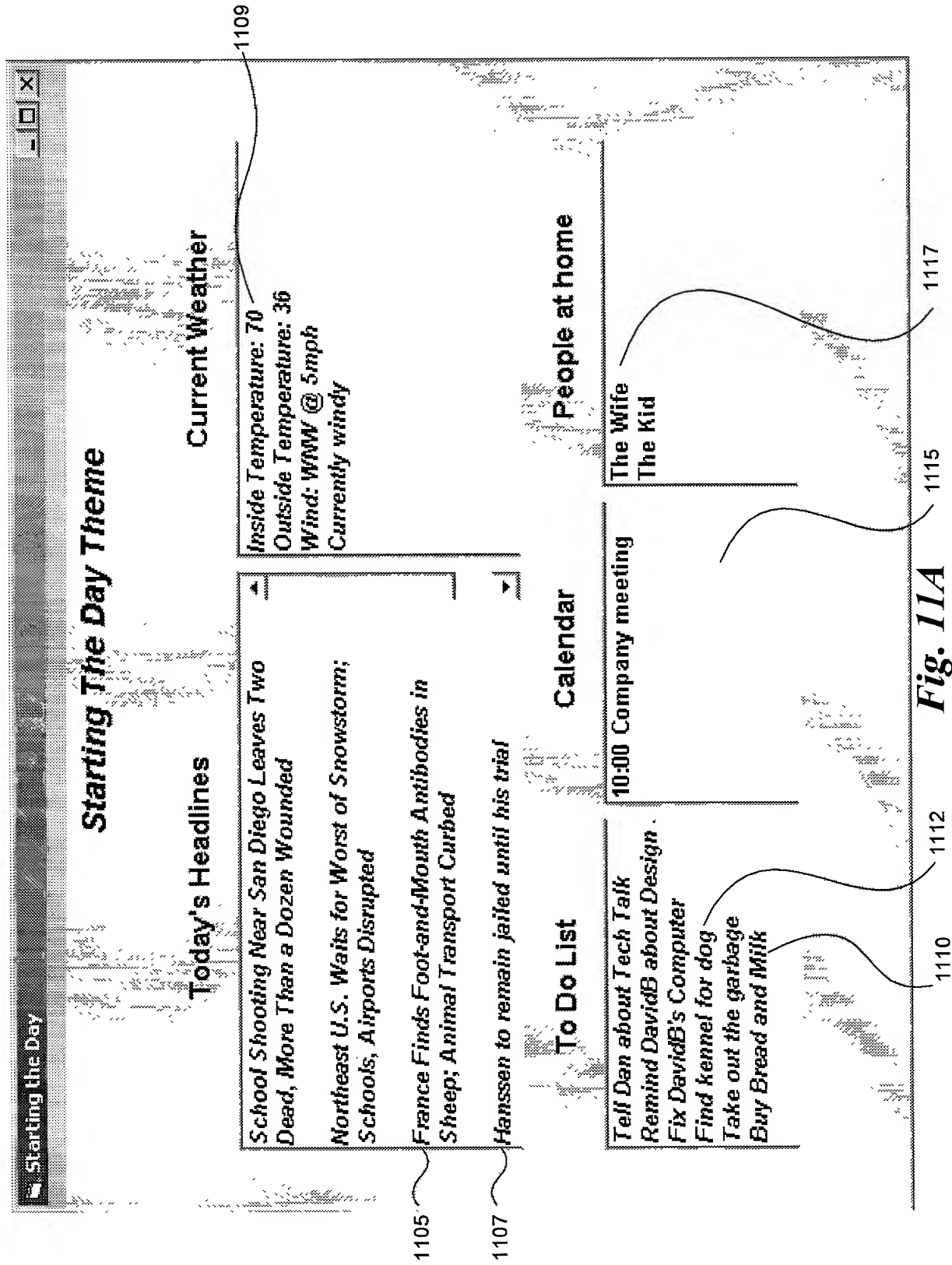


Fig. 10





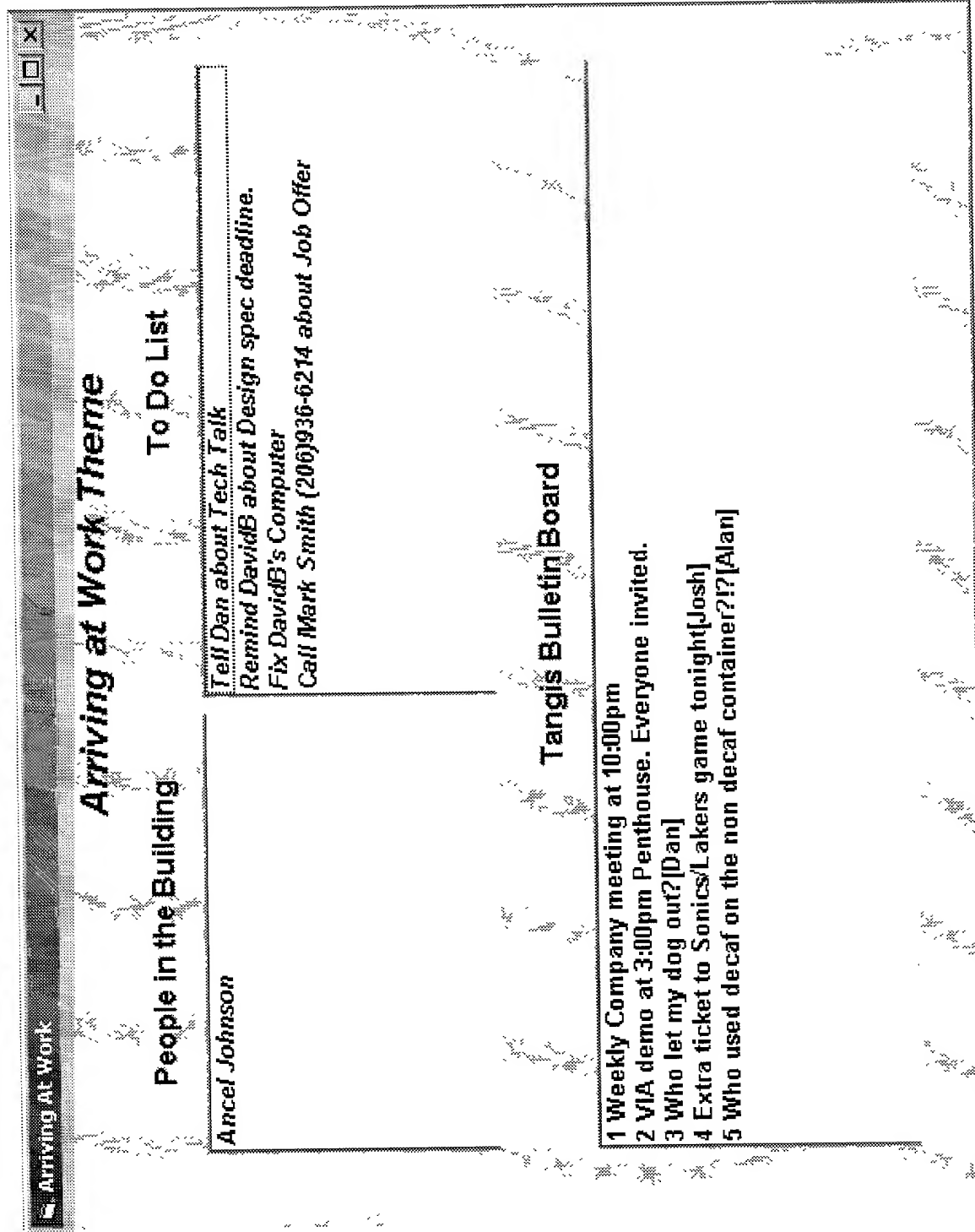


Fig. 11C

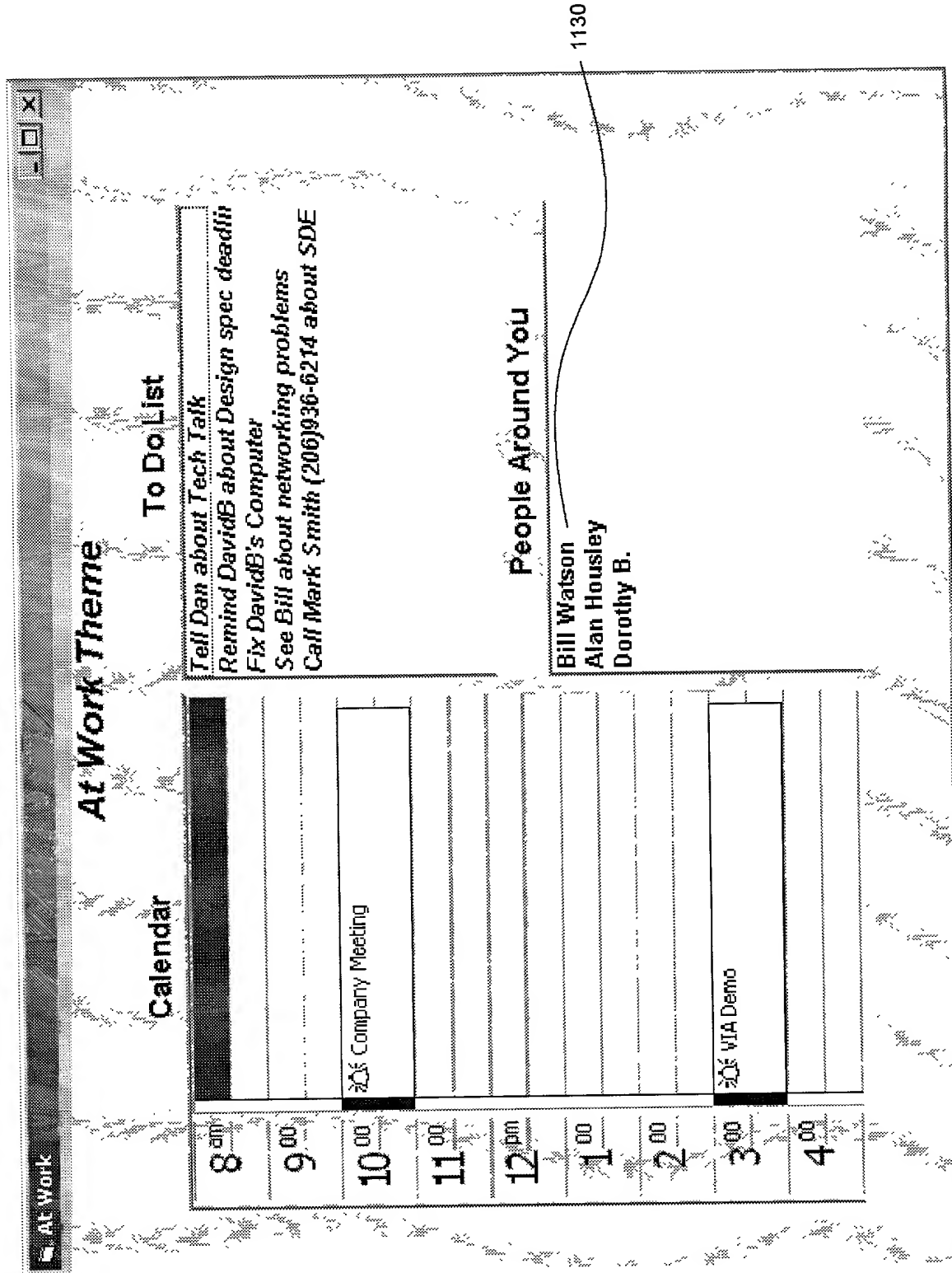


Fig. 11D

1135

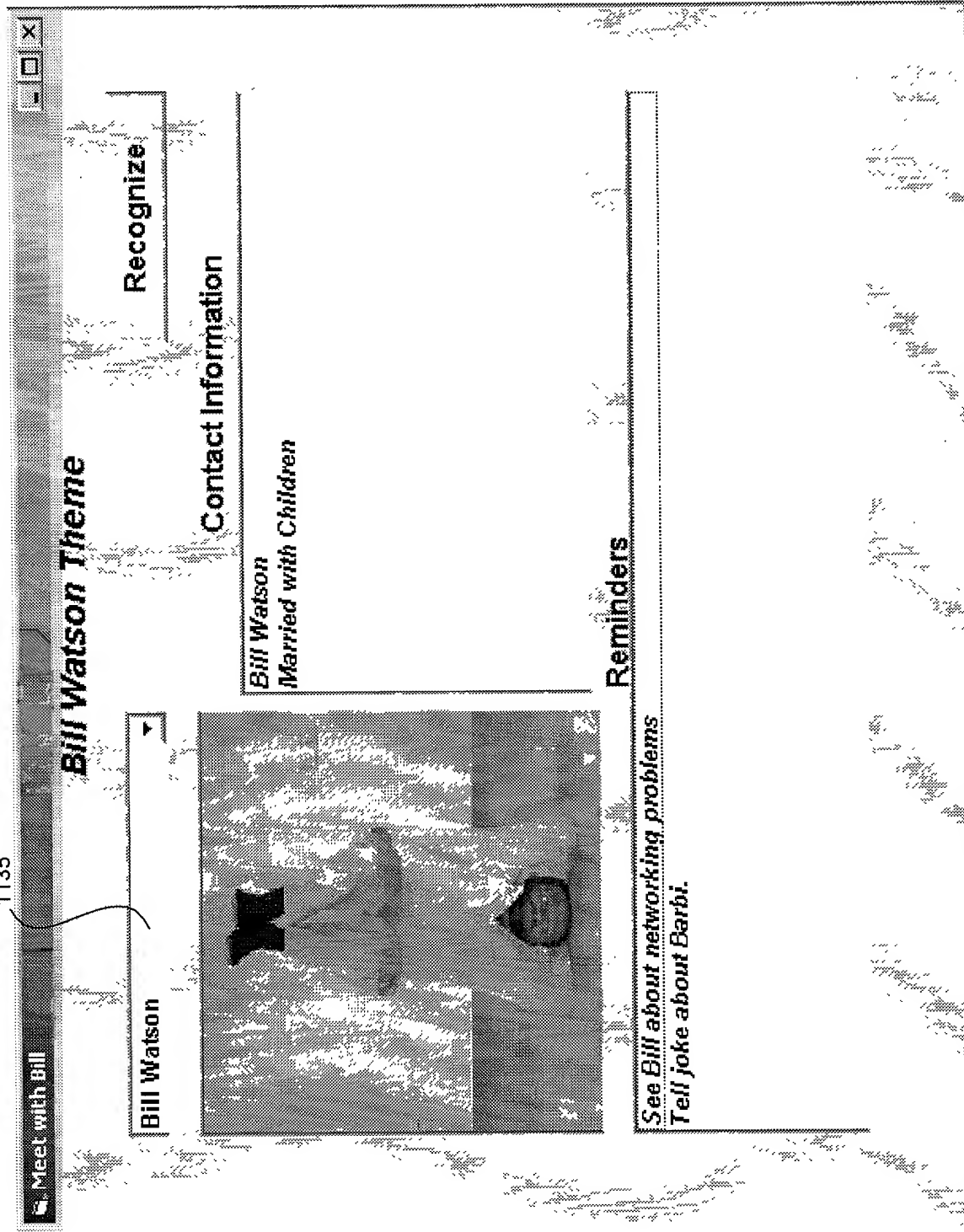


Fig. 11E

Company Meeting	
Meeting Theme	
Things to bring up	People Present
<p>Tell group what you did last week</p> <p>Tell group what you plan to do this week</p> <p>Tell group about your new invention.</p> <p>Tell group about your upcoming skiing trip.</p> <p>Kudos for Stan and Dorothy for finishing report</p>	<p>Aaron Graves</p> <p>Alan Housley</p> <p>Ancel Johnson</p> <p>Bill Watson</p> <p>Brian Rose</p> <p>Cesar Alvarez</p> <p>Dan Newell</p> <p>David Jukes</p> <p>Dorothy B.</p> <p>Jaquie T.</p> <p>Jeff Fried</p> <p>Jim Roberts</p> <p>Johnson A.</p> <p>Josh Freedman</p> <p>Kanisha Patel</p> <p>Ken Abbott</p> <p>Lisa Davis</p> <p>Molly Fitch</p> <p>Scott Price</p> <p>Stan Emerit</p>
<p>Notes</p> <p>Finished coding Turing Machine on Monday.</p> <p>Did bug bash on Tuesday.</p> <p>Survived an earthquake on Wednesday.</p> <p>Worked on CTK demo rest of last week</p> <p>Continuing work on CTK demo rest of this week</p>	

1137

Fig. 11F

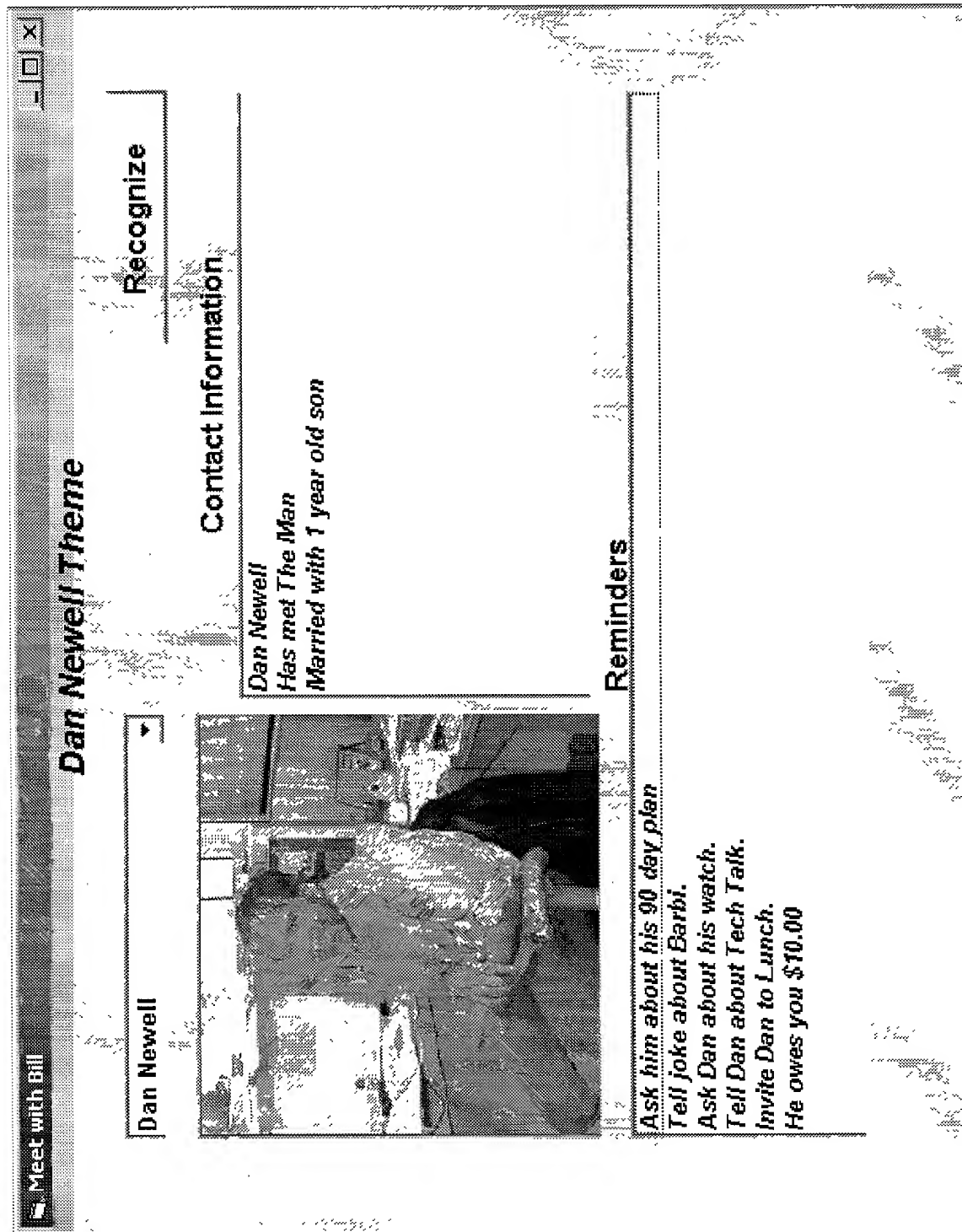


Fig. 11G



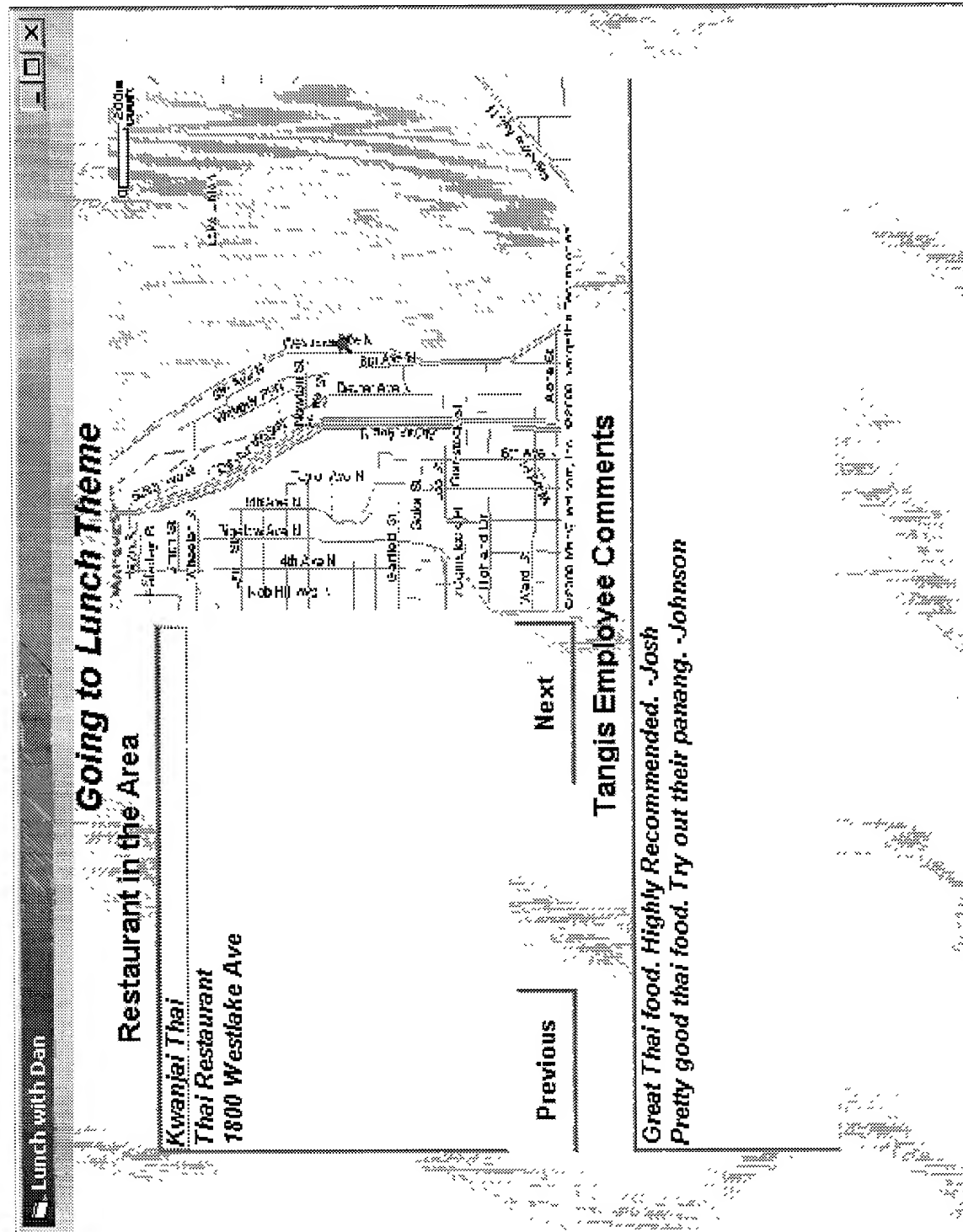


Fig. 11H

Repairing a PC

Repairing a PC Theme

Computer Equipment

Josh's Computer

Notes

Description

Software Installed

Hardware Installed

Dell XPS 4000  
Purchase Date: 11/20/2000  
Tangis Tag: PC001

Office 2000  
Visual Studios 6.0  
MS Entertainment Pack  
Boeing Marketing Tutorial: How to talk like a techie

Creative Sound Blaster 10.0 card  
Ricoh 32X CDRW  
MS USB Microphone  
Intel TR1688 100Mbps Token Ring

Currently inoperative  
Josh noticed a loud noise coming from the hard disk.  
He said it might be a problem with the disk's brake pads.  
If he mentions this again, humor him.

Fig. 111

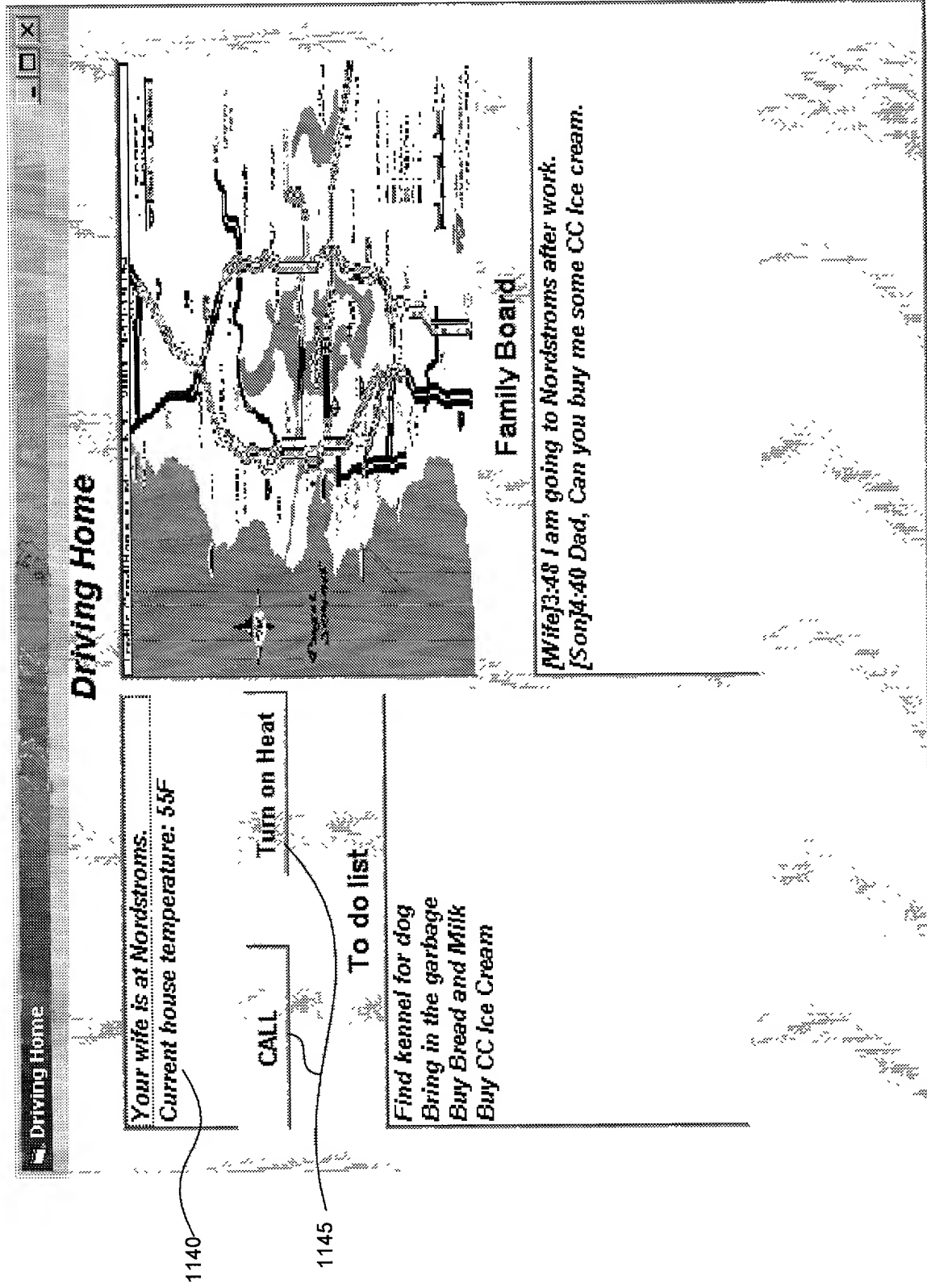


Fig. 11J

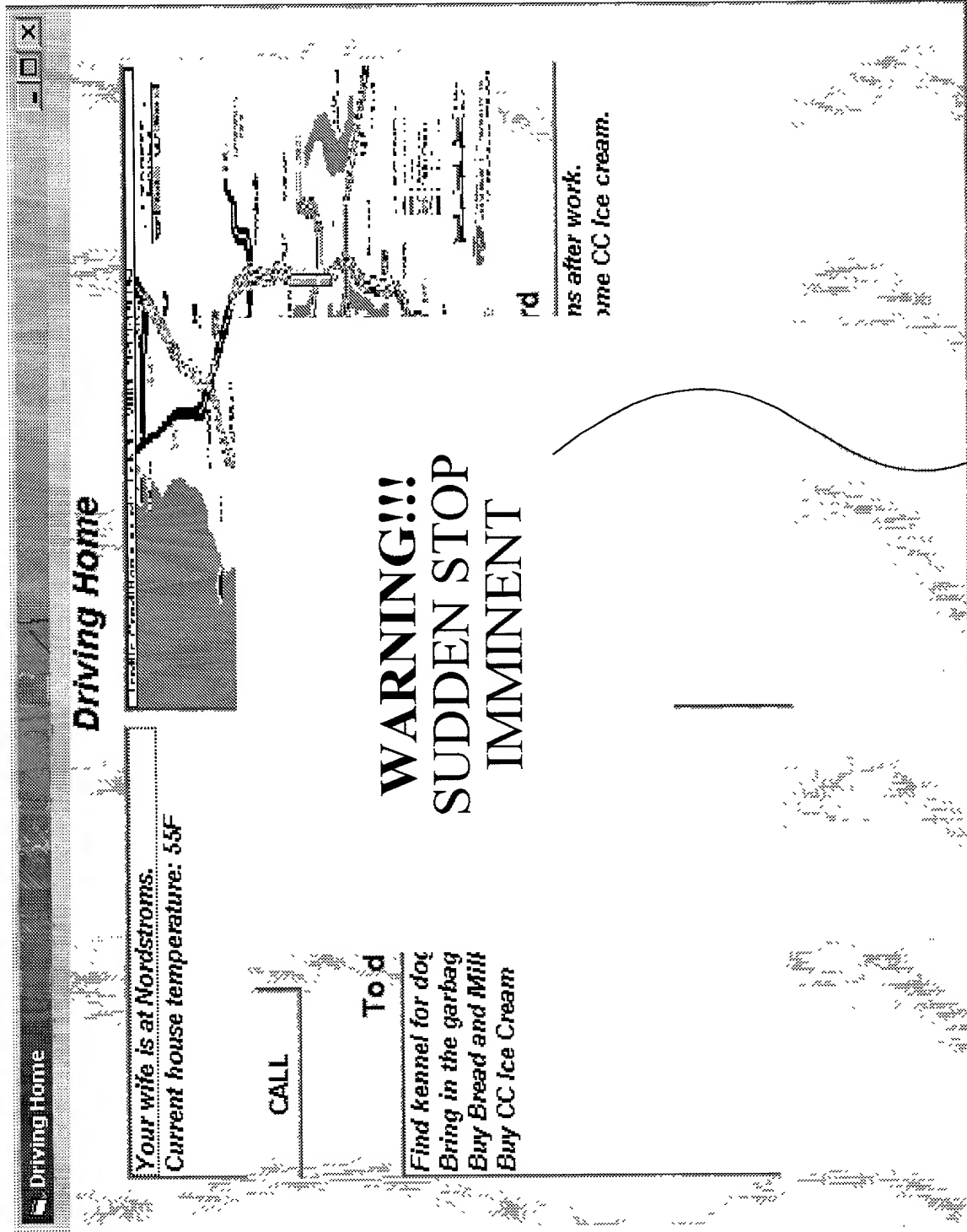


Fig. 11K

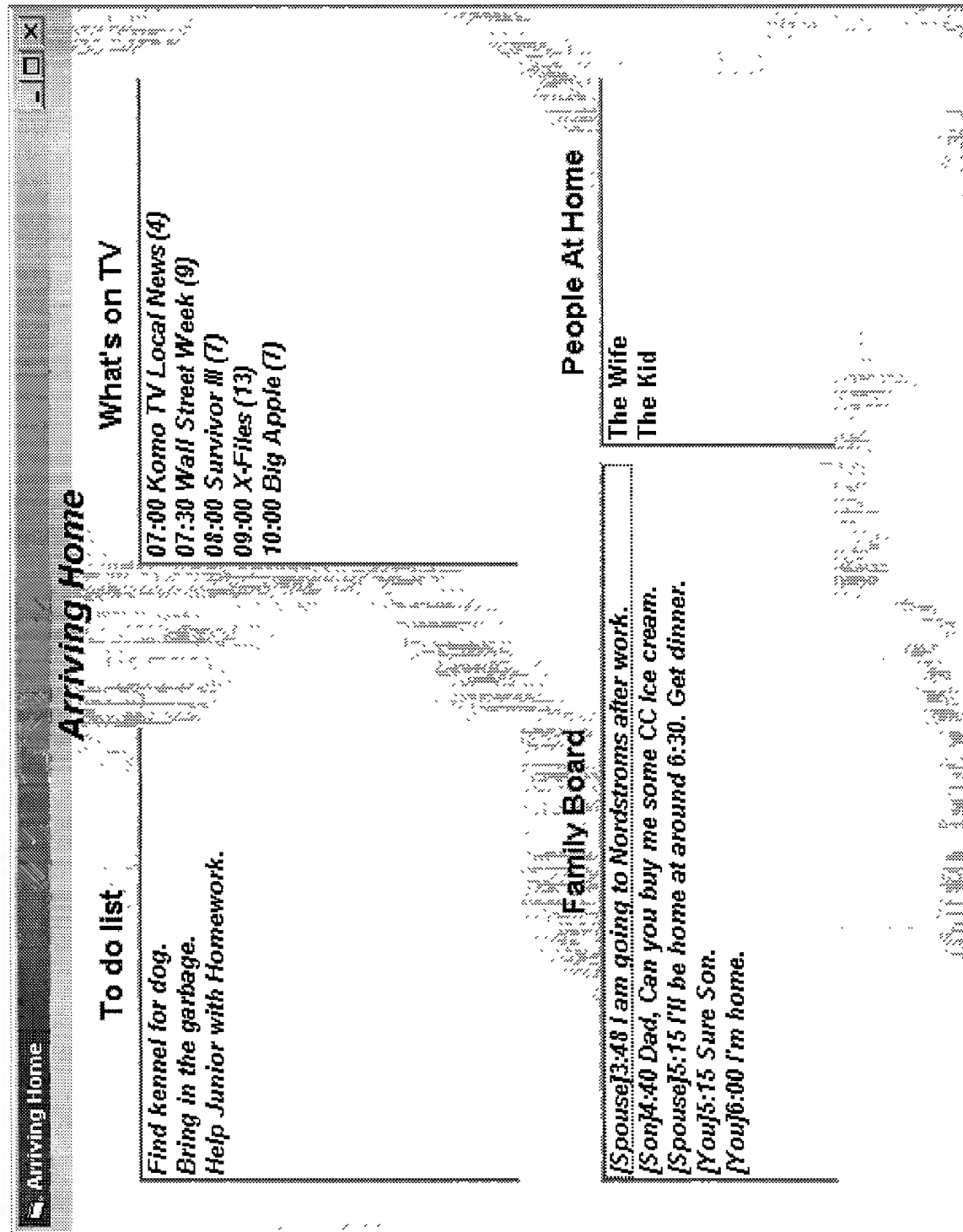
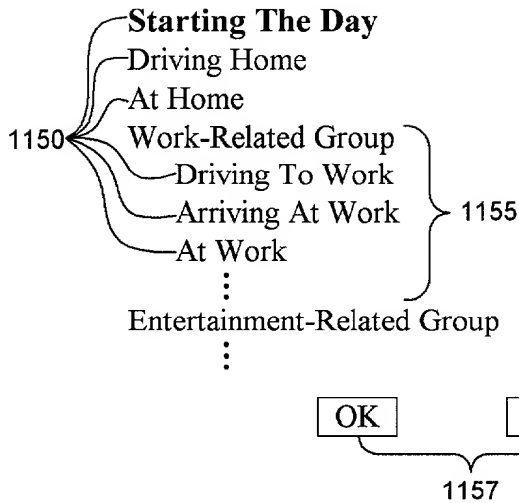


Fig. 11L

Example Current Theme Selection

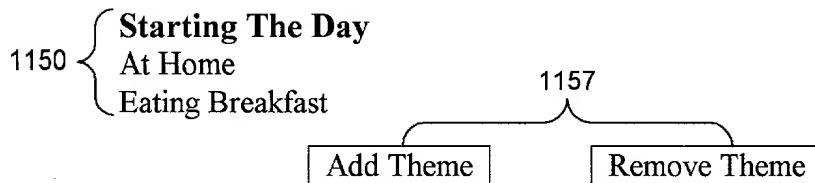
*Select A New Current Theme*



*Figure 11M*

Example Current Theme Set Modification

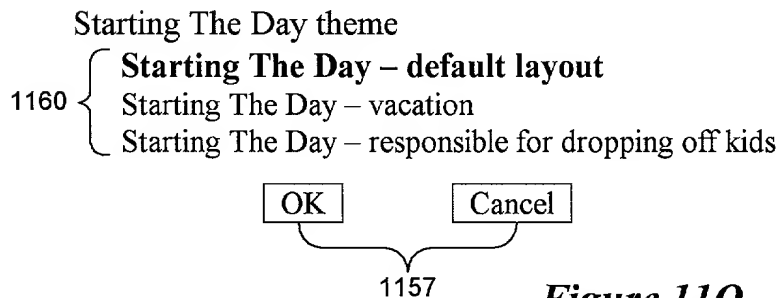
*Current Theme Set*



*Figure 11N*

Example Current Theme Layout Selection

*Select A New Current Theme Layout*



*Figure 11O*

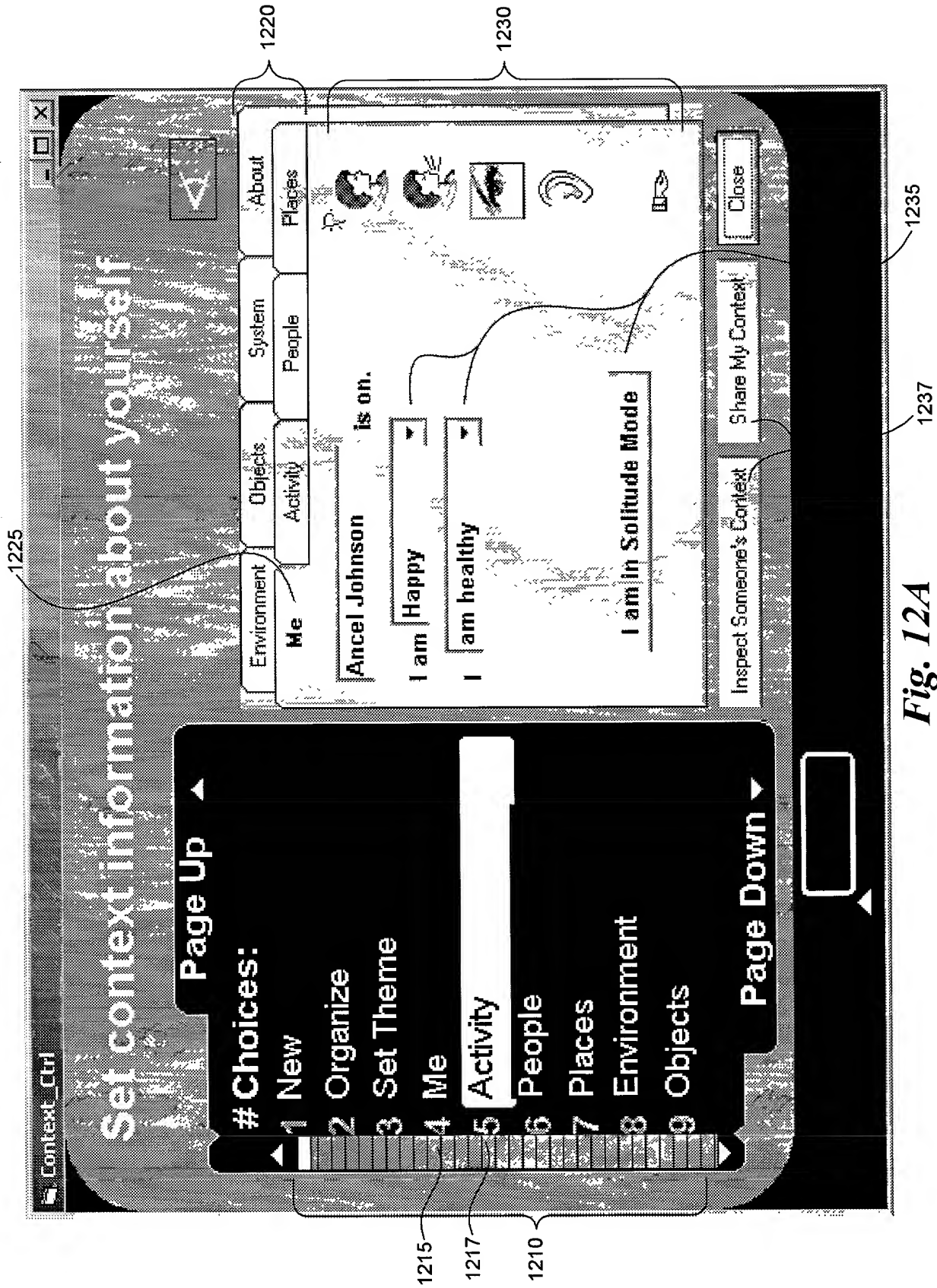


Fig. 12A

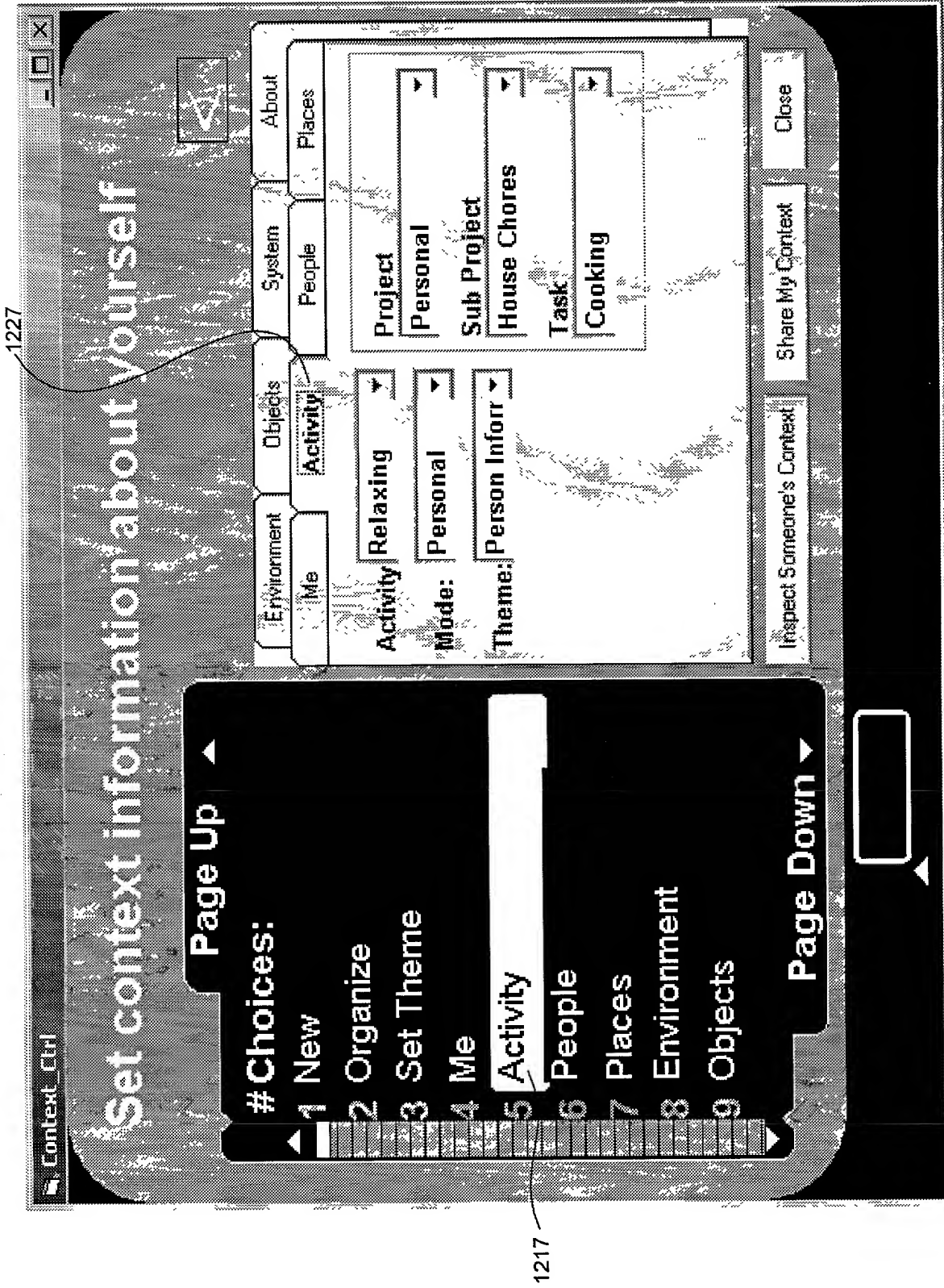


Fig. 12B



1241

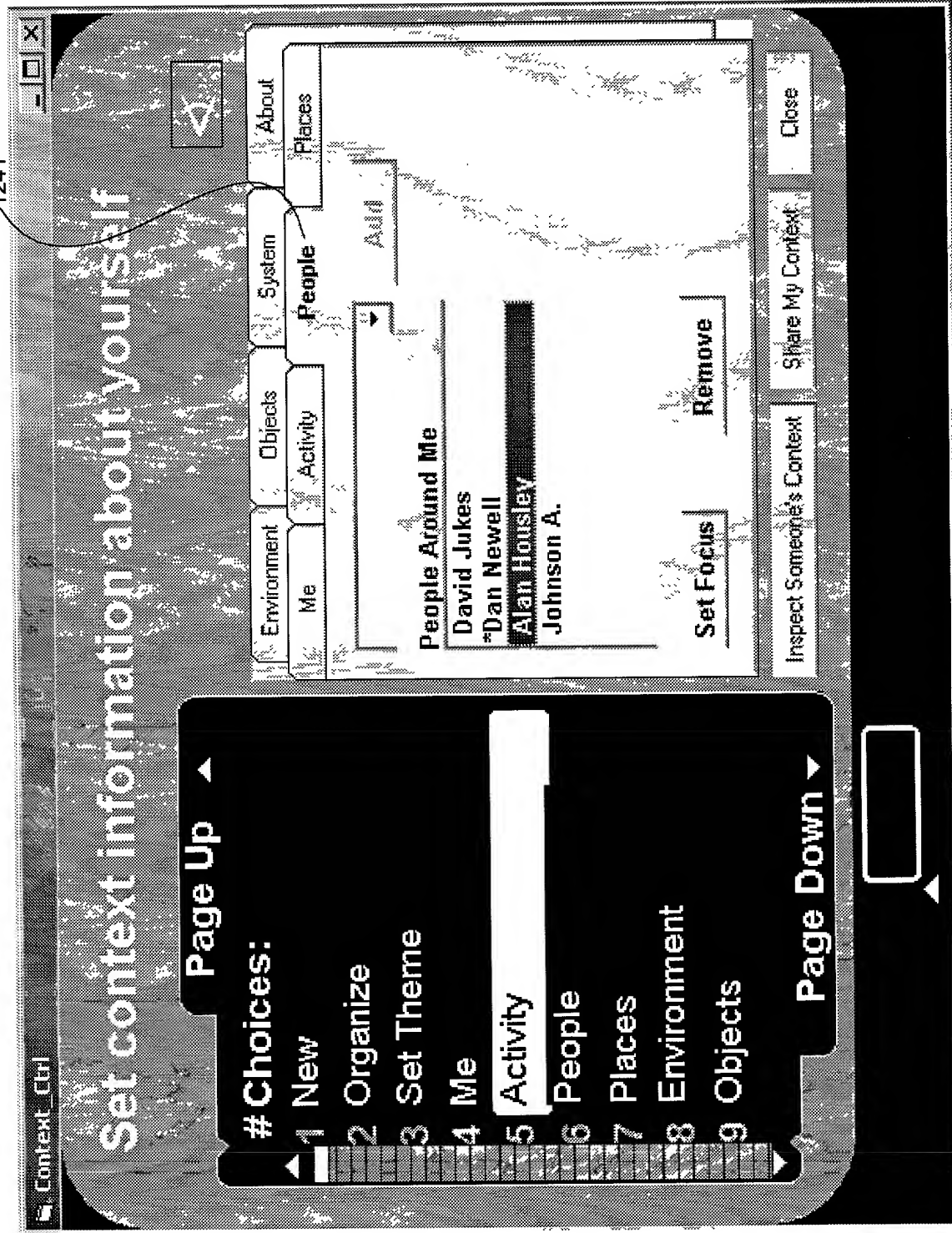


Fig. 12C

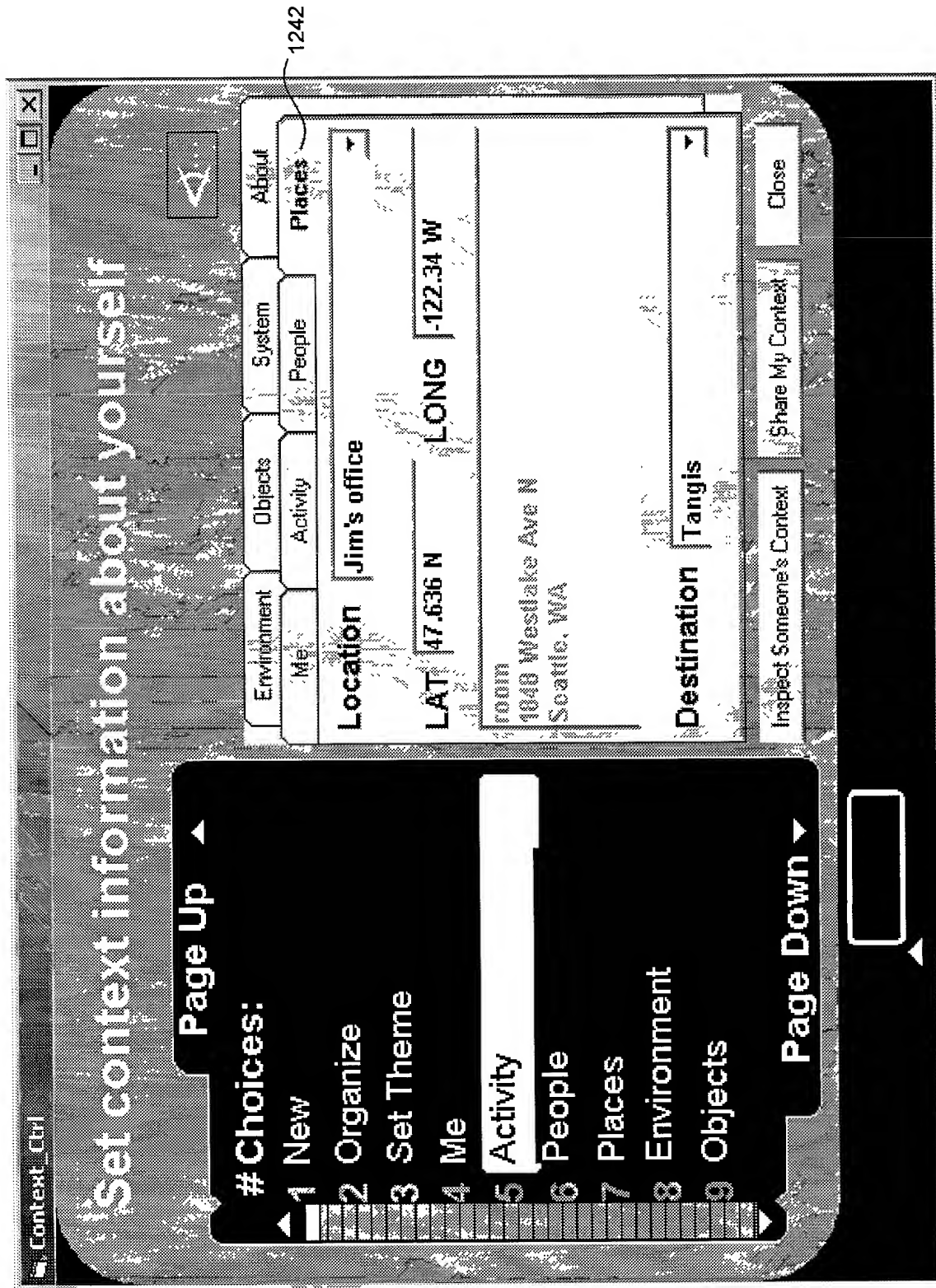


Fig. 12D

1243

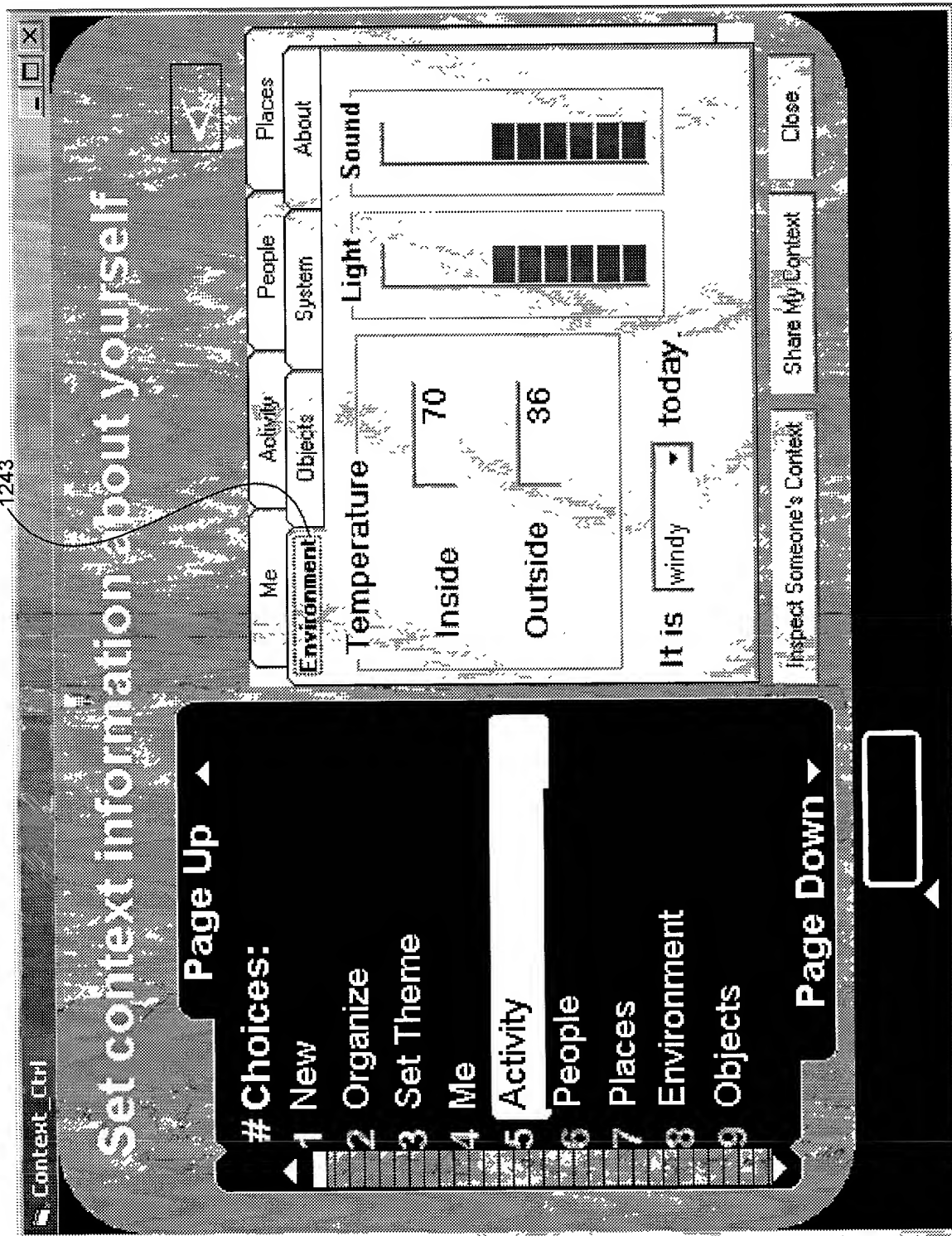


Fig. 12E

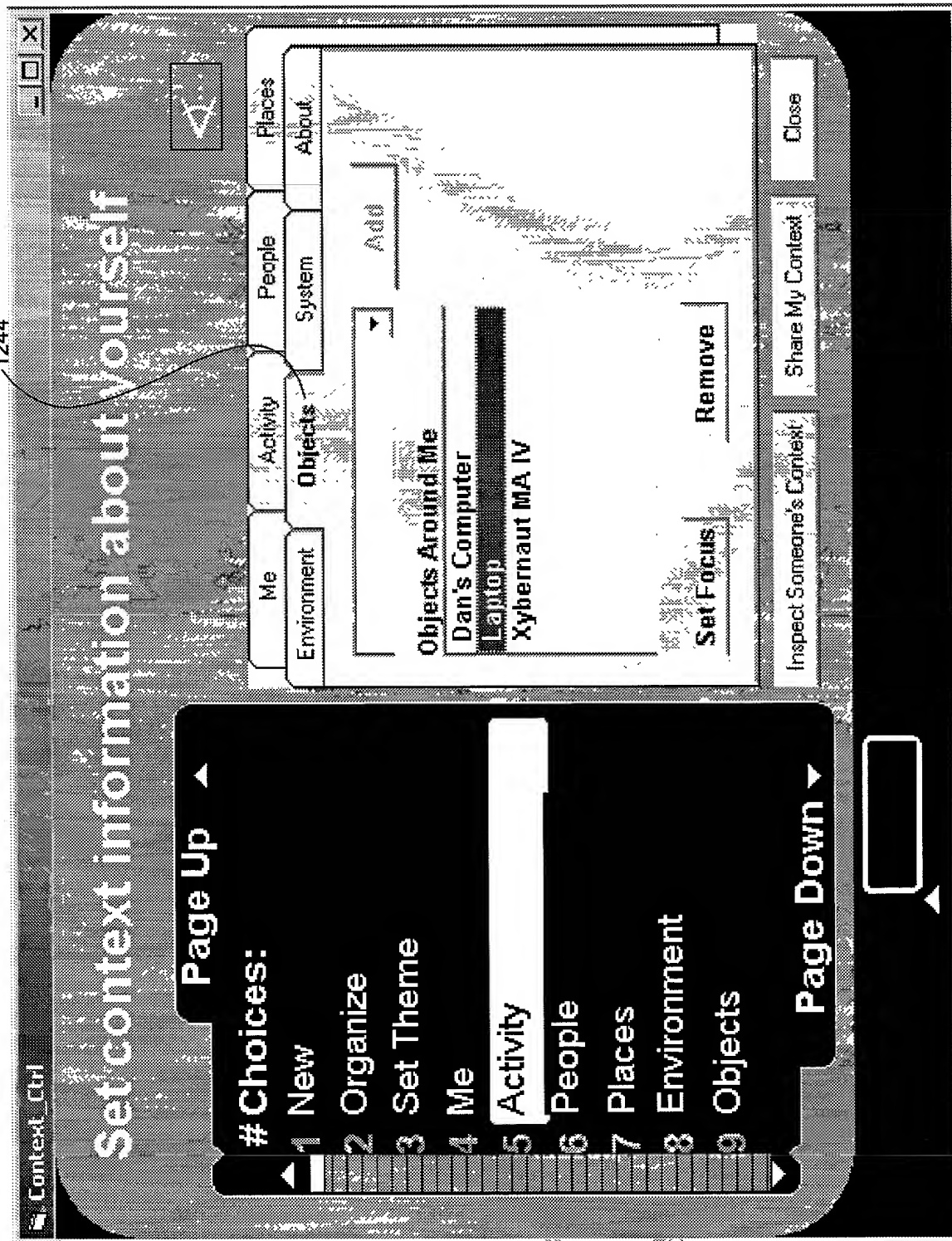


Fig. 12F

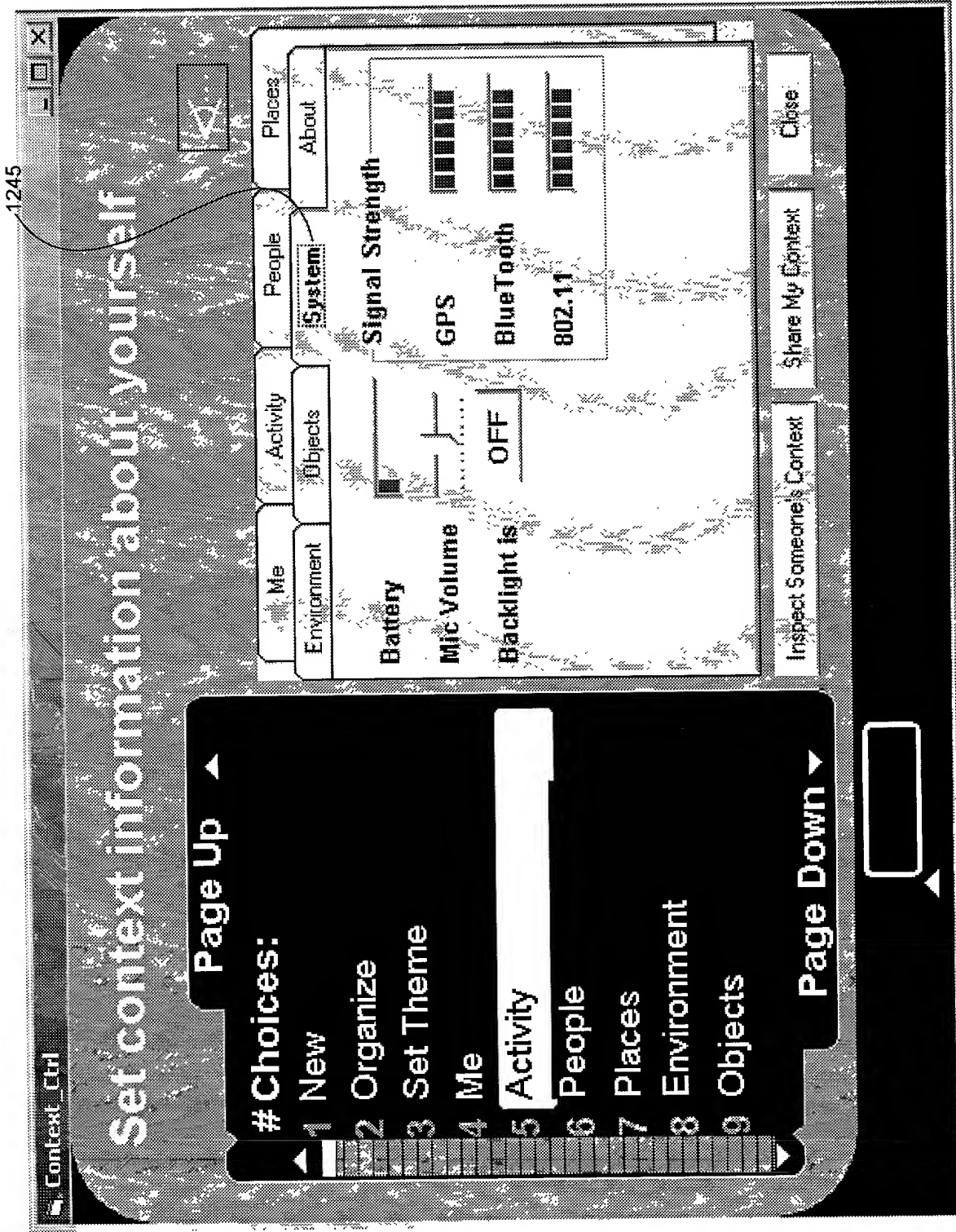


Fig. 12G



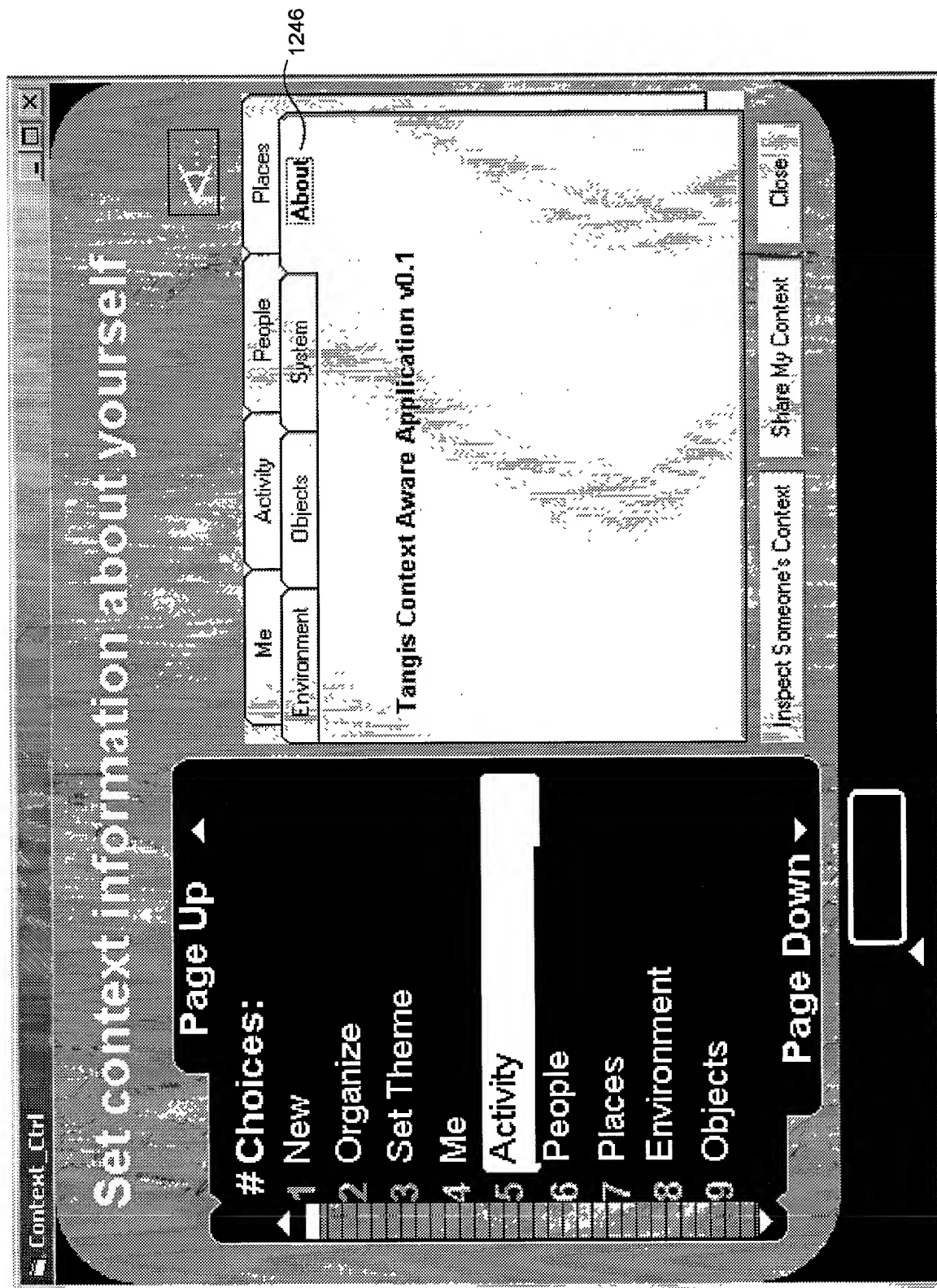


Fig. 12H

# Example Theme Data Structure

1305	Name	Driving To Work
1310	Description	Intent Is To Organize Both Driving Info & Info About Work Arrival
1315	Security	Default: ****; Self: *****, ...
1320	Permission	Access: Self + Family + Friends + Source; Modification: Self; Copy: None; ...
1325	Privacy	Private
1330	Priority	Medium
1335	Group-ID	23
1340	Time-Active	Mon-Fri, 06:00-11:00
1345	Source	BCD Motor Company
1350	Theme-Content	"BCD Motor logo.gif"
1355	New-Attributes	DTW-BCD.driving-direction: (source = "BCD-DTW CS"); ...
1360	Theme-Matching	user.activity.driving = true (required); environment.local.time = 08:00-09:00 (optional); DTW-BCD.driving-direction = NOT "South" (required), ...
1365	Theme-Logic	IF <user.activity.driving> AND user.location.latitude > recent.user.location.latitude THEN DTW-BCD.driving-direction = "North"; IF DTW-BCD.driving-direction = "East" THEN Alert("You're Lost Again!!"); SET user.location[Access] = Family & Co-workers; ...
1370	Attribute-Set	<link>; ... <link>
	⋮	

Attribute 1

Name	user.activity.driving
Value	True
Uncertainty	High
Timestamp	07:32 03/24/XX
Units	boolean
Access	Family
⋮	

...

Attribute N

Name	DTW-BCD.driving-direction
Value	West
Uncertainty	None
Timestamp	08:13 03/24/XX
Units	North, North by Northeast, ...
Access	Self
⋮	

Fig. 13

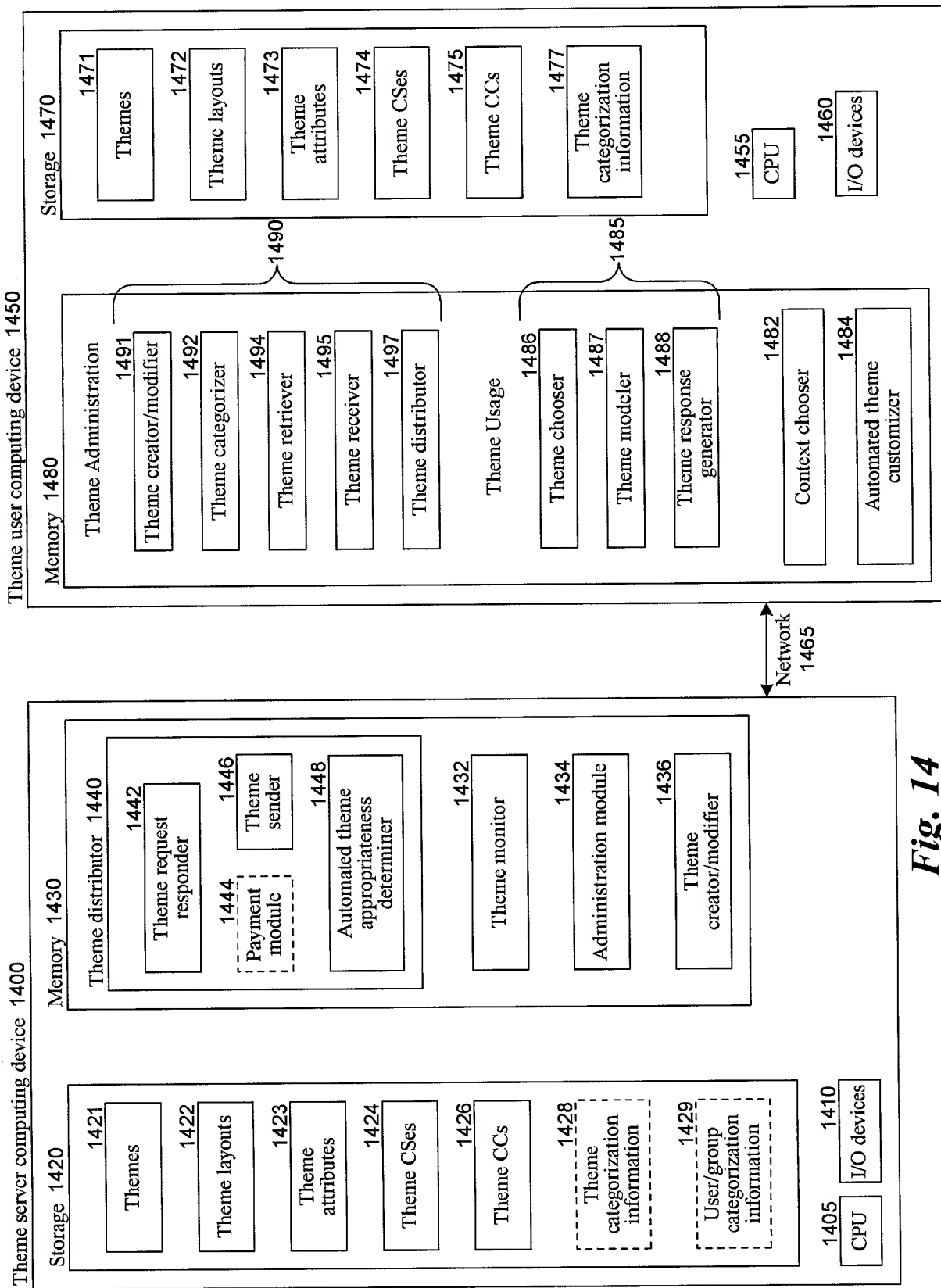
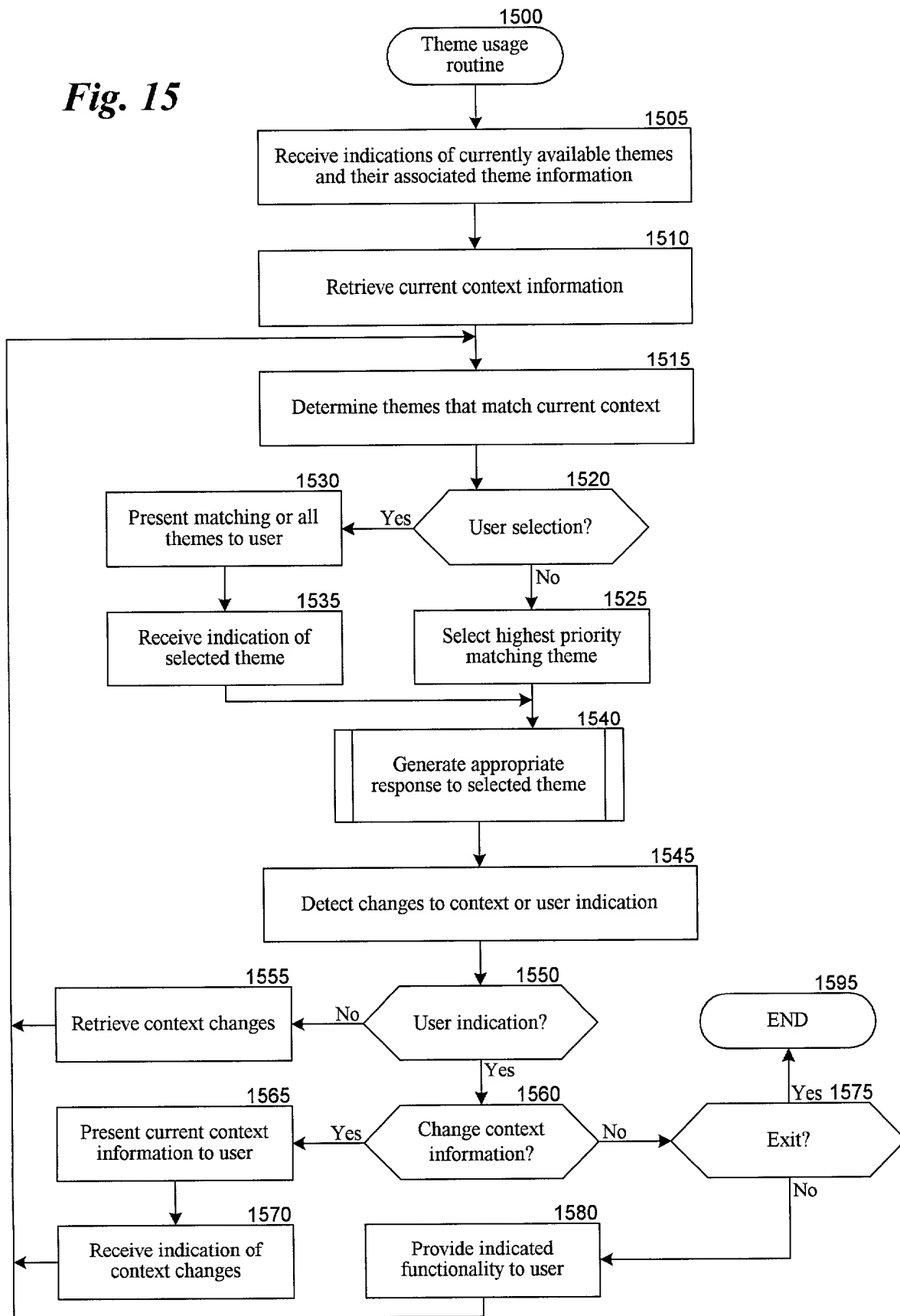


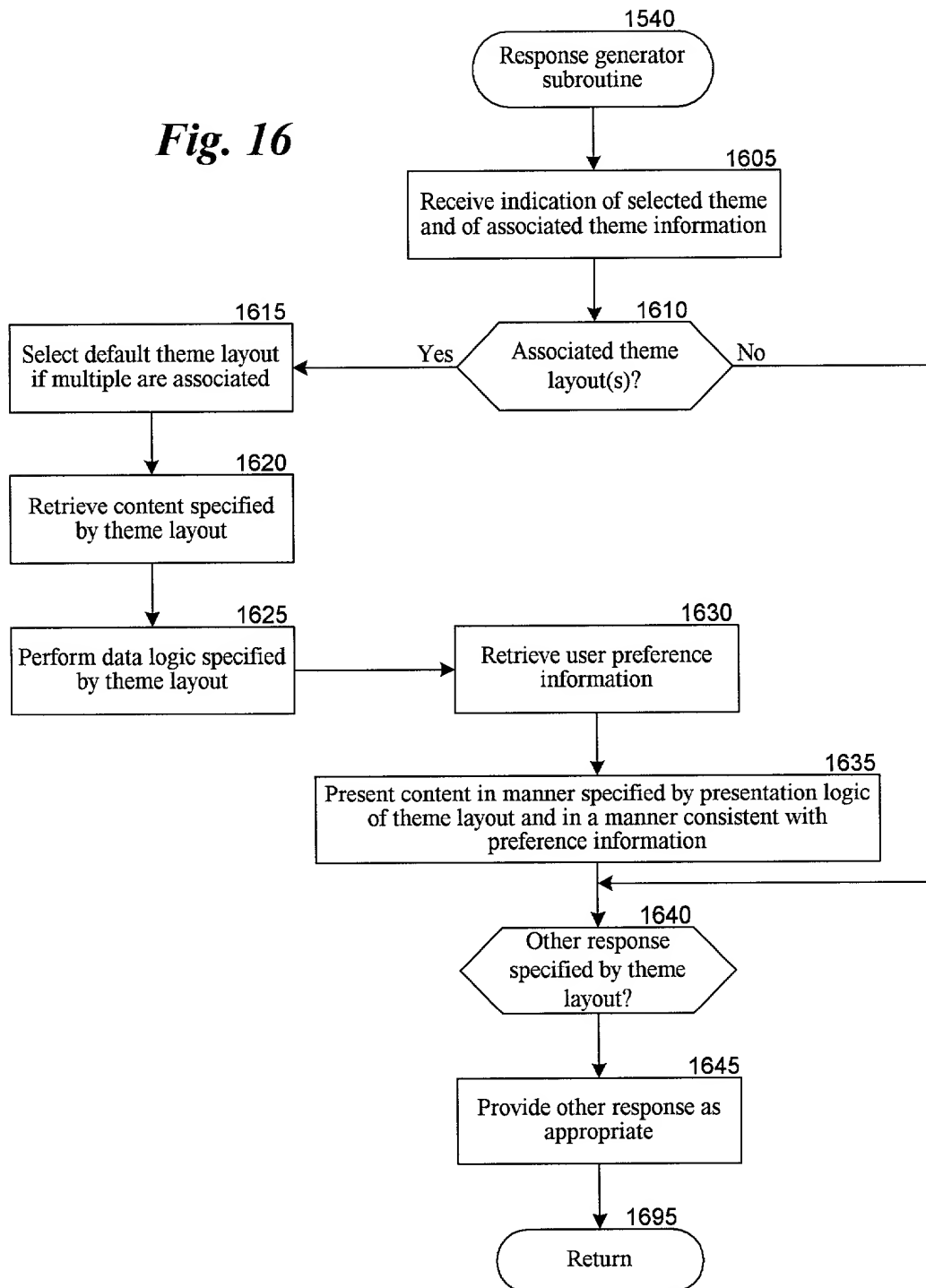
Fig. 14



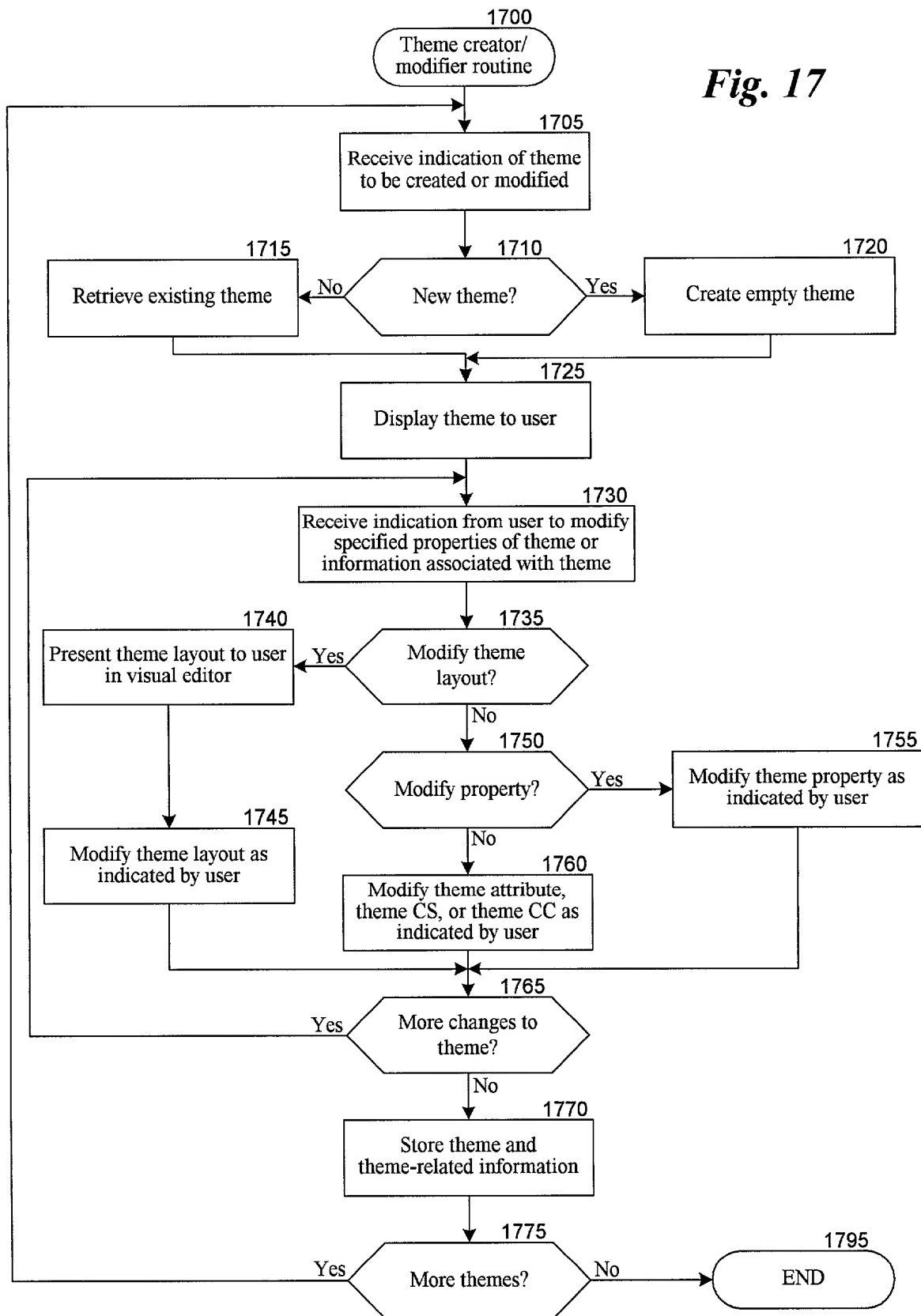
**Fig. 15**



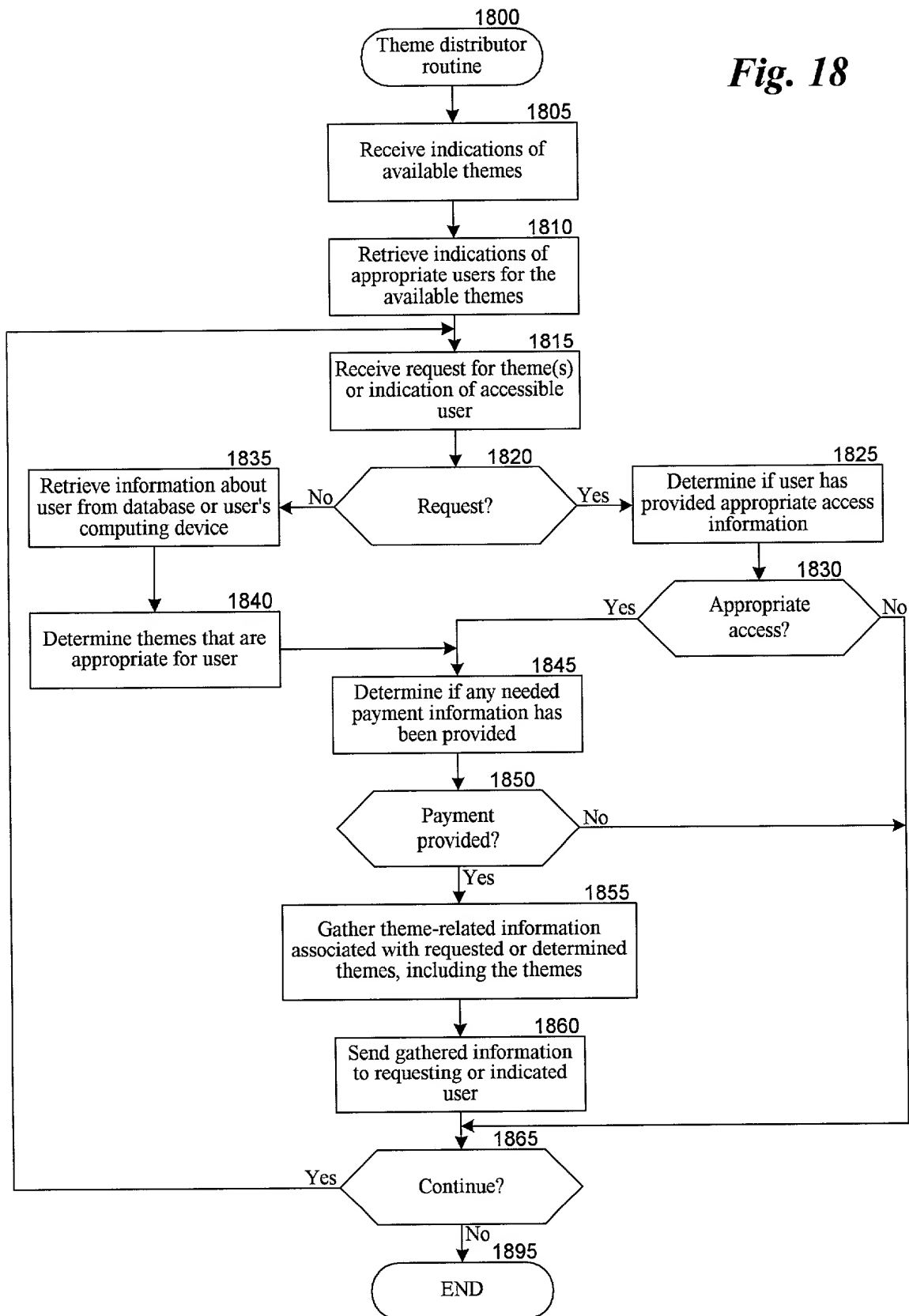
**Fig. 16**



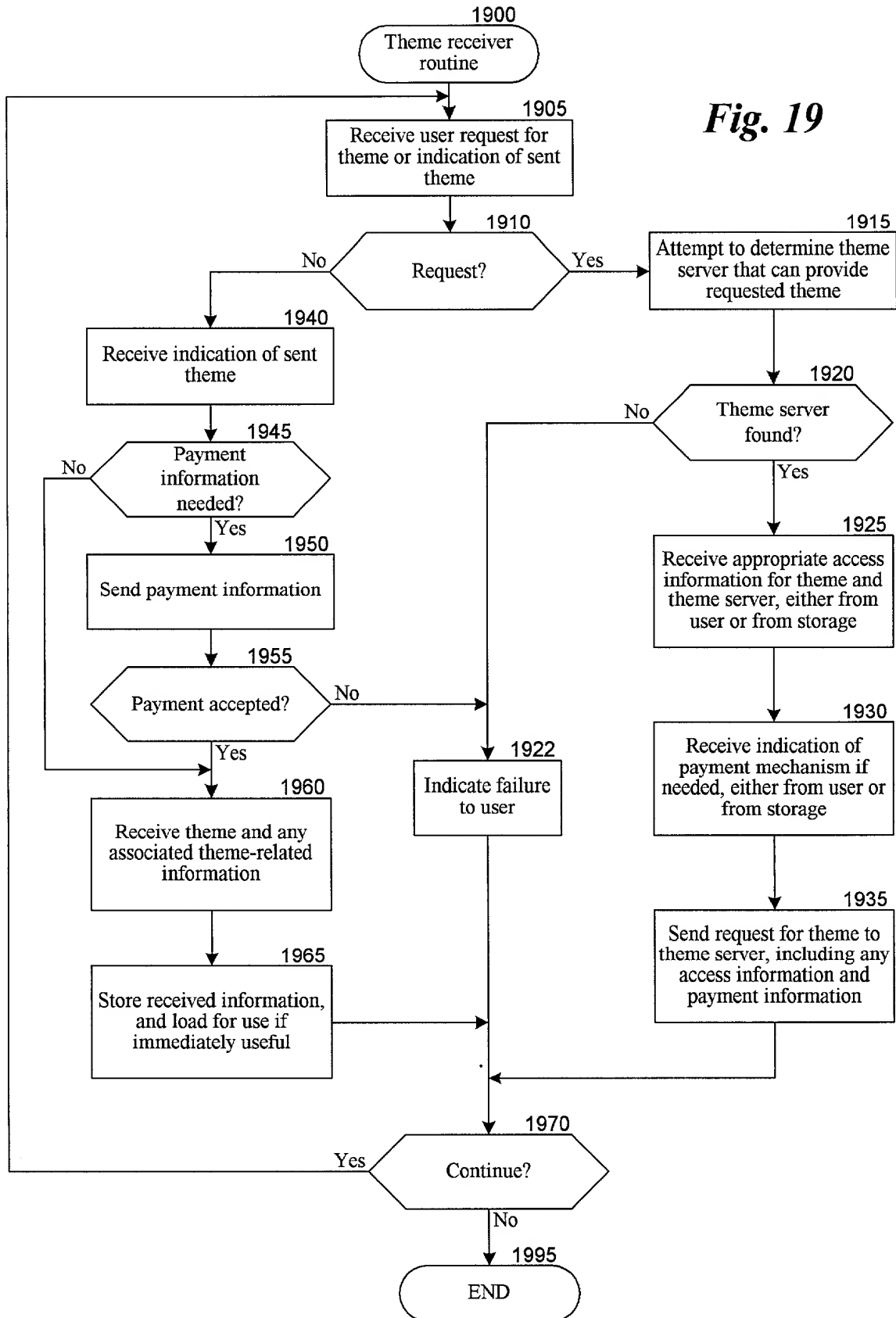
**Fig. 17**

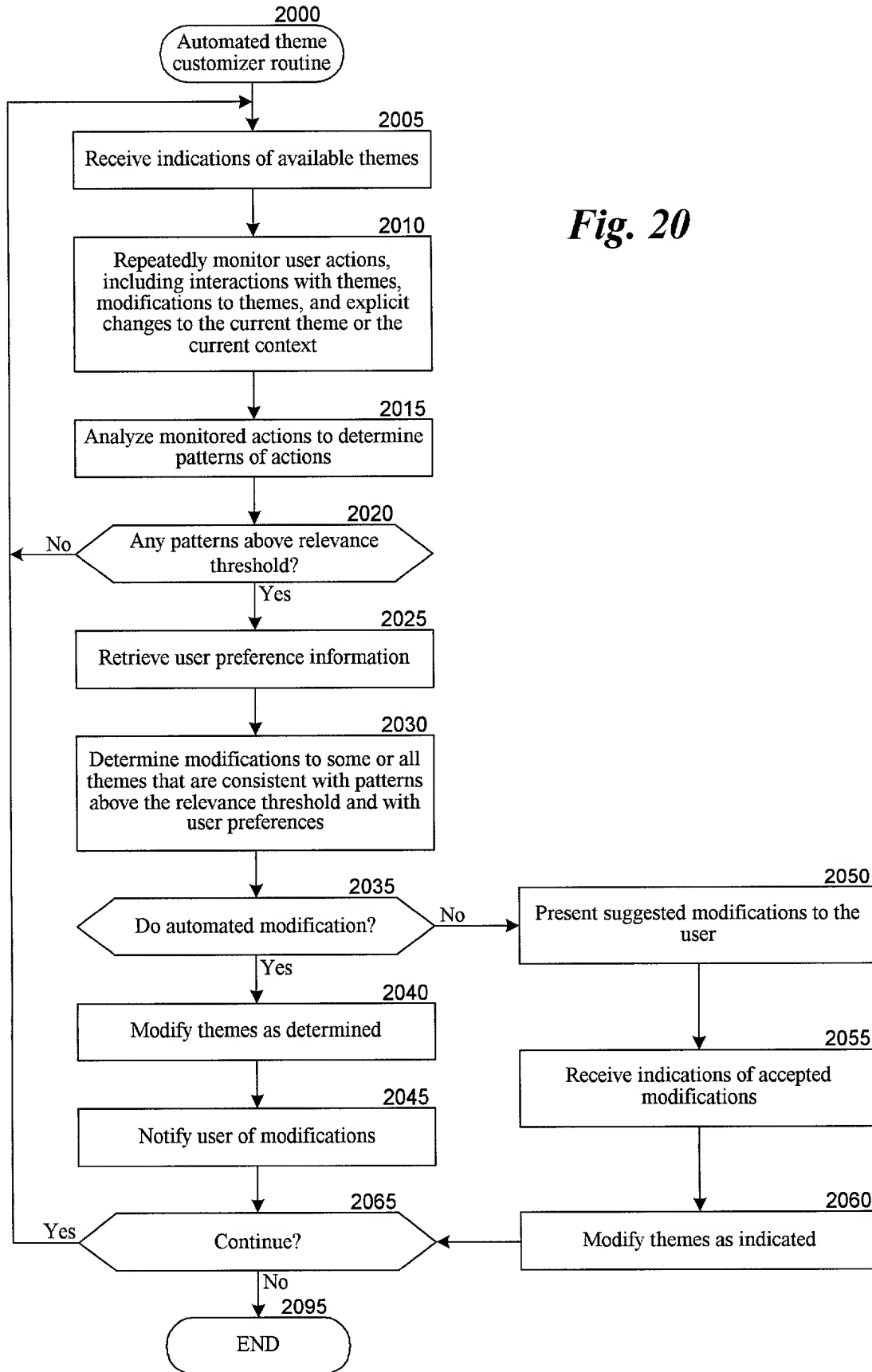


**Fig. 18**



*Fig. 19*





**Fig. 20**